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CONSOLIDATED VULTEE AIRCRAFT CORPORATION
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FEB 4 1955

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CONVAIR
FORT WORTH DIVISION

MODEL

REPORT FZA-36-325
DATE 4 August 1954

TITLE

FZA-36-325

DESCRIPTION OF PARASITE SYSTEM
UTILIZING CONVAIR B-36 CARRIER

SUBMITTED UNDER

CONTRACT AF 33(038) - 19948
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TABLE OF CONTENTS

Subject	Page
Table of Contents	1
Introduction	3
SECTION I - DESCRIPTION OF PARASITE SYSTEM	
General Description	4
Launching and Retrieving the Parasite	5
Description of the B-36 Carrier	7
Parasite Clearance Problems Relative to Carrier	12
Parasite Clearance Problems Relative to Trapeze	14
Parasite Latches and Release Systems	15
Loading	18
Appendix to Section I	86
SECTION II - PERFORMANCE DATA	
Performance Data	20
Typical Missions	21
Take-off Distance	26
Performance Summaries	29
Climb Performance	38
Long Range Cruise	42
Landing Weight	51
Landing Distance	54
Lift and Drag	56

CONFIDENTIAL

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TABLE OF CONTENTS (continued)

Subject	Page
Equivalent Weight Data for Stripped Airplanes	62
Sample Mission Calculations	64
SECTION III - WEIGHT AND BALANCE DATA	
B-36D Carrier	75
RB-36D Carrier	77
B-36H Carrier	79
RB-36H Carrier	81
Fuel	83
Oil	83
Fluid Injection	84
Trapeze Mechanism	84
RF-84F Parasite	84
REFERENCES	85

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INTRODUCTION

This document presents a complete description of a basic parasite system utilizing the Convair B-36 type aircraft as the carrier.

The information contained herein is sufficient for a preliminary evaluation of the basic stowage problem, basic aerial operation, and estimated performance for any proposed parasite aircraft. However, depending upon the proposed parasite mission, the following items should be considered also in any evaluation:

1. Servicing of parasite from the carrier in flight.
   a. Refueling
   b. Replacing camera magazines, etc.
2. High Altitude operation and equipment.
3. Communications equipment.
4. Rendezvous equipment.
5. Night lighting.
6 Special Monitoring Circuits.

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SECTION I

DESCRIPTION OF B-36 CARRIER, TRAPEZE MECHANISM AND PARASITE LATCHES

GENERAL DESCRIPTION

The composite aircraft (See Plate 1, p.A-1) consists of a B-36 type aircraft equipped as a carrier, with a parasite airplane suspended by a trapeze installed in the B-36 bomb bay.

The trapeze is designed to support, launch, and retrieve the parasite during flight, and provides parasite support during carrier take-off and landing. It consists primarily of a trapeze actuating cylinder, drag brace, boom snubber and suspension boom. The suspension boom supports the parasite at three points-- at the nose and on each side of the fuselage (See Plate 2, p.A-2). The nose attachment is an open fork receiver lying in a horizontal plane which is engaged by the parasite vertical nose latching fork. The aft boom latches are engaged from below by the pins on the parasite fuselage.

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LAUNCHING AND RETRIEVING THE PARASITE

With the parasite pilot in the cockpit, and the bomb-bay doors around the parasite open (See Plate 6, p.A-20) the trapeze is extended from CRUISE POSITION to EXTENDED POSITION. At the EXTENDED POSITION the parasite engine is started, and when all checks are made, the parasite pilot signals the trapeze operator to lower the parasite to LAUNCH POSITION. This is done by pivoting the boom about the main jack yoke by means of the positioning jack, and simultaneously releasing the boom aft latches (See Plate 2, p.A-2). Thus, the parasite is suspended and is being towed by the forward latch only at the LAUNCH POSITION. When ready, the parasite pilot actuates the probe release switch (See Plate 5, p.A-19), thereby releasing the parasite from the carrier.

When the parasite is to be retrieved, the trapeze operator extends the trapeze to the RETRIEVING POSITION (same as LAUNCH POSITION), while the parasite approaches the carrier from below and behind. When the parasite nose probe fork is lined up with the boom probe receiver, the parasite is accelerated gradually to obtain a differential closing speed of one to two mph IAS, and engages. The force resulting from the engagement is sufficient to operate the parasite nose probe latch automatically. Once the parasite is securely latched on and stabilized, the

LAUNCHING AND RETRIEVING THE PARASITE (Continued)

trapeze operator retracts the boom to the EXTENDED POSITION. In this position, the trapeze operator directs the parasite pilot to use right or left rudder to align the parasite aft latch pins with the boom latches. When the latches are aligned, the parasite wing flaps are lowered until the parasite raises enough to engage the two aft latches on the boom. The trapeze and attached parasite are then retracted into the bomb bay to the CRUISE POSITION to permit the pilot to leave the parasite.

For emergency jettisoning of the unmanned parasite, the carrier pilot or trapeze operator actuates a switch which discharges an air bottle in the boom aft latches (See Plate 3 p.A-13), and simultaneously explodes a squib which frees the probe receiver from the boom.

For parasite normal and emergency release system, see paragraph on Parasite Latches and Release Systems.

NOTE

A problem to be investigated is the dynamic stability of the proposed parasite while being towed in the LAUNCH and RETRIEVE POSITIONS. Experience with the present parasite system indicates that dynamic instability does exist, but can be manually controlled by the parasite pilot.

DESCRIPTION OF B-36 CARRIER

The B-36 and RB-36 are structurally identical for purposes of this report. The major difference in the two models is that the B-36 Bomb Bay No. 1 (Bhds. 5.0 to 6.0) and Bomb Bay No. 4 (Bhds. 8.0 to 9.0) were converted to a Camera Compartment and Radar Equipment Bay, respectively, for the RB-36 configuration. Further modification of the RB-36 to a parasite carrier added a trapeze operator's station in the Camera Compartment, and relocated the Radar Equipment Bay to an area aft of Bhd. 10.0.

The basic major structural modifications and additions to a standard B-36 or RB-36 aircraft required for installation of a launching and retrieving mechanism consist of the following:

1. Removal of the lower portion of bulkhead 7.0 to permit parasite storage in bomb bay. (See FWAP #825, p. A-4 and FWAP #1094, p. A-5).
2. Revise lower portion of bulkhead 8.0 to make provisions for trapeze drag brace attachment.
3. On RB-36, the ECM antennas are relocated to lower fuselage surface aft of bulkhead 10.0.
4. Installation of fixed fairing between bulkheads 8.0 and 9.0 containing a slot to receive the vertical tail of a parasite (See Plate 6, p. A-20).

DESCRIPTION OF B-36 CARRIER (Continued)

5. Bomb bay doors in the parasite area are replaced with doors and fairings which fair around the parasite in the CRUISE POSITION and close up the opening left by the parasite when away from the carrier (See Plate 6, p.A20).

6. On B-36, a trapeze operator's station must be installed in Bay No. 1 and means for parasite pilot to enter B-36 crew area must be provided.

POWER PLANT

B-36 Carrier:

No. and Model:	(6) R4360-41 or (6) R4360-53*
Manufacturer:	Pratt and Whitney
Engine Spec. No.:	A-7063-E
Supercharger:	Gear Driven Single Stage, Single Speed
Turbo-Supercharger (No. and Type):	(2) BH-1 Turbos
Turbo Manufacturer:	General Electric
Red. Gear Ratio:	0.375
Prop. Manufacturer:	Curtiss Wright
Blade Design No.:	1129-1706-24
Prop. Type:	Constant Speed, Full Feathering, Reversible
No. Blades/Prop. Dia.:	3/19'
Augmentation:	Water/alcohol
plus	
No. and Model:	(4) J47-GE-19

* - 41 Engine is used on the B-36D and RB-36D
 - 53 Engine is used on the B-36H and RB-36H

POWER PLANT (CONT'D)

B-36 Carrier: (Cont'd)

Manufacturer:	General Electric
Engine Spec. No.:	E-589
Type:	Axial Flow Turbojet
Length:	144"
Diameter:	39"
Tail Pipe:	Fixed Area
Weight (dry)	2475 lb.

FUEL

Spec.	MIL-F-5572
Grade	115/145

FLUID INJECTION

Type	Location	No. of Tanks	Gallons
Water/alcohol	Engine Nacelles	6	54

OIL

	Recip.	Jet
Capacity (Gal.)	[illegible] 1200	52
Spec.	MIL-O-6082	MIL-O-6081
Grade	S-1120:W-1100	1010

ENGINE RATINGS

(Manufacturer's Guaranteed Ratings)

R4360-41 Engine

	BHP	RPM	ALT.	Time (Min.)
Take-off:	*3500	2700	S.L.	5
	3250	2700	S.L.	5

R4360-41 Engine Rating Cont'd

	BHP	RPM	ALT.	Time(Min.)
Military:	*3500	2700	Up to 34,100'**	30
	3250	2700	Up to 34,100'**	30
Normal:	2650	2550	Up to 39,400'**	Continuous

* Wet
** Turbosupercharger limitation

R4360-53 Engine

	BHP	RPM	ALT.	Time(Min.)
Take-off	*3800	2800	S.L.	5
	3500	2800	S.L.	5
Military	*3800	2800	Up to 35,000'**	30
	3500	2800	Up to 35,000'**	30
Normal	2800	2600	Up to 39,000'**	Continuous

* Wet
** Turbosupercharger Limitations

J47-GE-19

	S.L. Static Thrust-lb.	RPM	Time. Min.
Maximum & Military	5200	7950	30
Normal:	4730	7630	Continuous

Dimensions

Wing:

Area:	4772 sq. ft.
Span:	230.0 ft.
A.R.	11.08
Incidence (root):	3°
(tip):	1°

Dimensions (Cont'd)

Dihedral:	2°
Sweepback (L.E.):	15°5'39"
Length:	162.1 ft.
Height:	46.8 ft.
Tread:	46.0 ft.
Prop. Ground Clearance:	53.5 in.
Surface Areas:	
Wing	7927 sq. ft.
Nacelles	2003 sq. ft.
Fuselage	5103 sq. ft.
Empennage	3590 sq. ft.
Jet Nacelles with strut per nacelle (2)	800 sq. ft.
	19,423

PARASITE CLEARANCE PROBLEMS RELATIVE TO CARRIER

Major clearance points to the B-36 which should be investigated for stowage of a proposed parasite are shown on Dwg. FW5410001, p.A-6, and Dwg. FW5410002, p.A-7. These points are:

1. Wing Box Section
   The parasite canopy must clear the lower contour of the wing box sufficiently for the canopy to be opened to allow the parasite pilot entry to the parasite in the CRUISE POSITION. Further, the closed canopy must clear the wing box lower contour when the parasite is in the TAKE-OFF and LANDING POSITION.
2. Main Landing Gear Retracting Arc
   The parasite must be lowered to the EXTENDED POSITION to allow the carrier main landing gear to be retracted or extended. In the EXTENDED POSITION, the wings of the parasite must clear the landing gear arc.
3. Propeller Arc
   For some proposed parasites of a delta or extreme swept wing configuration, the propeller arc might interfere with the wing in the STOWED POSITION.
4. Inboard Flap Travel
   For a proposed parasite with twin vertical tail surfaces, an interference could exist between the vertical tails and the flap.

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PARASITE CLEARANCE PROBLEMS RELATIVE TO CARRIER (Continued)

5. Ground Clearance

The most extreme landing attitude of the B-36 is shown on FW5410001, p.A-6, and all portions of the parasite should clear this ground line when the boom and parasite are in the TAKE-OFF and LANDING POSITION.

6. Longeron Clearance

Drawing FW5410001, p.A-6, shows a section of the longeron. The longeron location and dimensions are essentially constant along the entire length of the bomb-bay on both the B-36 and RB-36 airplanes. The bomb-bay length available for parasite stowage is from Bhd. 5.0 to 9.0 for B-36, and from Bhd. 6.0 to 9.0 for RB-36.

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PARASITE CLEARANCE PROBLEMS RELATIVE TO TRAPEZE

It is realized that the existing trapeze mechanism would be unsatisfactory for some proposed parasites. However, other proposed parasites may be of such size and shape that changes to the existing mechanism would be negligible. Therefore, a complete description of the present trapeze mechanism is contained herein so changes may be held to a minimum.

The major clearance points to the trapeze mechanism which should be investigated for a proposed parasite are shown in this report on the following drawings:

36L25200 Sht. 2 & 3, p. A-8, A-9 - Trapeze Mechanism Installation
FW5410003, p. A-10 - Layout - Clearance Dimensions for Trapeze and Parasite
36R14102, p. A-11 - Geometry - RF84F Trapeze Mechanism
FW5410005, p. A-12 - Layout - Enlarged portion of 36R14102, Trapeze Geometry.

From these drawings, a preliminary estimate may be made relative to changes required in the trapeze mechanism, the proposed parasite, or to both, to make them compatible.

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PARASITE LATCHES AND RELEASE SYSTEMS

Drawings 43F43501, p.A-14, 43F43506, p.A-16, and 43F43522, p.A-15 completely describe the probe fork latch on the nose of the parasite. Drawing 43F43518, p.A-17 shows the parasite rear support pins and mechanism. Plate No. 4, p.A-18 presents the parasite hydraulic system in schematic form. Plate No. 5, p.A-19 illustrates the release controls in the parasite cockpit.

The normal release control in the parasite cockpit is the probe release switch mounted on the parasite throttle control lever (See 4, Plate 5, p.A-19). When the switch is depressed, a solenoid valve is actuated to release hydraulic pressure for probe latch retraction. When the switch is released the latch adjusts for re-engagement.

For normal and emergency retraction of the aft latch pins and the parasite probe, the probe and pin control lever is used. A complete description of the probe and pin control lever (see Plate 5, p.A-19) and details of its operation follows: -

This lever (2, Plate 5, p.A-19) is located at the left side of the parasite pilot's pedestal just below the instrument panel. The lever has five detent positions identified from top to bottom as follows: EMER EXTEND, EXTEND, PIN RETRACT, LATCH REL, [illegible] and RETRACT. The lever is cable-connected to a directional

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PARASITE LATCHES AND RELEASE SYSTEMS (Continued)

valve which directs hydraulic pressure from the parasite's utility system for the selected operation in all positions except EMER EXTEND. When the lever is placed in EMER EXTEND a separate cable is pulled to open a valve for pneumatic extension of the probe and pins. Pneumatic pressure for this operation is obtained from the parasite's landing gear emergency air bottle. A locking mechanism which is actuated by a button (1, Plate 5, p.A-19) is located adjacent to the lever and prevents inadvertent lever movement downward from EXTEND. In addition, a guard (3, Plate 5, p.A19) must be held down to permit lever movement to EMER EXTEND. The EXTEND position extends the probe and pins which are then mechanically locked. The lever should be in this position when the parasite is fully engaged. After a normal release of the parasite, the lock button is depressed and the lever is moved directly to RETRACT for probe and pin retraction.

NOTE

When the probe is retracted, a limit switch on the probe mechanism prevents inadvertent latch operation precluding damage to the latch and the surrounding structure.

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PARASITE LATCHES AND RELEASE SYSTEMS (Continued)

Just prior to retrieving, the lever must be returned to EXTEND. If the probe and pins fail to extend, the lever guard can be held down and the lever moved into EMER EXTEND.

NOTE

When the lever is placed in EMER EXTEND, a mechanical lock prevents any subsequent lever operation for the remainder of the flight. Before the next flight, the lever must be unlocked and returned to EXTEND by maintenance personnel.

If the aft latches fail to release when the trapeze operator's aft latch release switch is actuated, the probe and pin control lever can be moved to PIN RETRACT to retract the aft latch pins. If the probe latch does not retract in response to the probe release switch, the lever can be moved to LATCH RELEASE to retract the latch.

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LOADING

The loading procedure will vary with the individual parasite, but a general description of the most recent loading procedure is presented for information only.

The carrier is towed onto ramps which are 55" high. Further elevation is obtained by pressurizing the main gear oleo to fully extended position. This procedure elevates the carrier to the position shown on Plate 7, p. A-21.

The parasite, resting on its normal landing gears, is towed into position under the B-36. A small dolly containing a hydraulic jack is attached to the parasite nose gear, and the parasite nose is lifted to a position where the probe lines up with the boom probe.

The fighter is towed forward until the nose probe is engaged. The dolly is then removed from the parasite nose gear, and the boom is lowered by actuating the trapeze main jack until the aft latches are engaged.

When all latches are securely engaged, the parasite landing gear is retracted and the parasite itself is retracted to the TAKE-OFF POSITION.

LOADING (Continued)

For proposed parasites which are not adaptable to the above loading procedure, loading pits may be considered as an alternate method.

It is to be noted that a pit is required for the trapeze hydraulic system bleeding procedure. This pit is 30 ft. long, 8 ft. wide, and 10 ft. deep to allow complete extension of the trapeze (minus parasite) for ground testing.

SECTION II

Performance Data

The performance data presented herein are of sufficient detail that an evaluation of performance for B-36 carrier-parasite configuration can be made. Data are presented for the standard B-36D, RB-36D, B-36H and RB-36H carrier airplanes.

In addition to carrier alone, $\Delta C_D = 0$, performance data are presented for drag increases of $\Delta C_D = .0030$ and $\Delta C_D = .0060$ to cover any inherent drag rise due to a composite configuration. All data presented are for launching and retrieving the parasite at 25,000 feet attitude. Data are also included for the consideration of stripped carriers.

Sample calculations are presented for three missions and they are in conformance with the descriptions of typical missions and Mil-C-5011A rules.

Weights data for all airplanes are presented in section III.

SECRET

TYPICAL MISSIONS

BASIC RADIUS

Carrier

Warm-up, take-off and climb on course at normal rated power to 5,000 feet. Cruise at long range speeds and altitudes to a point where a climb is made to 25,000 feet. Following one minute for warm-up of parasite turbojet engine, launch parasite. Loiter at 25,000 feet in area of launch, cruising at long range speeds during parasite mission plus 15 minutes for rendezvous and retrieve of parasite. Descent to optimum altitude long range flight path and cruise back to base. Range free allowances include 10 minutes of normal power fuel consumption for reciprocating engines plus 5 minutes of normal power jet engine fuel consumption for warm-up and take-off plus loiter time at powers for long range cruise at 25,000 feet for reciprocating engine only plus 5% of initial fuel and fuel for 30 minutes cruise at sea level for landing and reserve.

Parasite Bomber

One minute maximum power warm-up and immediate launch at 25,000 feet, climb on course to optimum altitude for cruise at long range speed. Cruise to within 50 nautical miles of target and descend to sea level. Cruise at normal power 50 nautical miles to target, drop bomb, conduct 2 minutes of evasive action over target and 50 nautical miles run out at normal power. Climb at maximum power to optimum altitude long range flight path and

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cruise at long range speeds to rendezvous point and descend to 25,000 feet to be retrieved. Range free allowances include one minute maximum power warm-up immediately prior to launch plus 5% of initial fuel plus fuel for 20 minutes cruise at sea level for rendezvous, retrieve and reserve.

Parasite High Altitude Reconnaissance

One minute maximum power warm-up and immediate launch at 25,000 feet, cruise at long range speeds and altitudes to a point 50 nautical miles from target. Cruise at this altitude (combat altitude) 50 nautical miles to target, conduct 2 minutes evasive action and cruise out 50 nautical miles at normal power. Climb at maximum power to optimum altitude long range flight path and cruise at long range speeds to rendezvous point and descend to 25,000 feet to be retrieved. Range free allowances include one minute maximum power warm-up immediately prior to launch plus 5% of initial fuel plus fuel for 30 minutes cruise at sea level for rendezvous, retrieve and reserve.

Parasite Low Altitude Reconnaissance

One minute maximum power warm-up and immediate launch at 25,000 feet, cruise at long range speeds and altitudes to a point 50 nautical miles from target. Descend to sea level, conduct 50 nautical mile run-in to target, 2 minutes of evasive action over target and 50 nautical miles run-out at normal power. Climb at maximum power to optimum altitude long range flight path and cruise at long range speeds to rendezvous point and descend to 25,000 feet to be retrieved. Range free allowances include one

minute maximum power warm-up immediately prior to launch, plus 5% of initial fuel, plus fuel for 30 minutes cruise at sea level for rendezvous, retrieve and reserve.

FERRY RANGE MISSION

The ferry range mission is conducted with a composite airplane and consists of warm-up, take-off and climb to 5,000 feet at normal rated power, cruise to landing base at optimum altitude for long range. Range free allowances include 10 minutes of reciprocating engine normal power fuel consumption, plus 5 minutes of jet engine normal power fuel consumption for warm-up and take-off, plus 5% of initial fuel, plus fuel for 30 minutes cruise at sea level for landing and reserve.

ADVANCED BASE PICK-UP MISSION

Any of the above outlined missions may be operated as an advanced base pick-up mission. The carrier takes off separately at some gross weight so that after retrieve of the parasite the combined gross weight does not exceed 370,000 pounds. An additional allowance of 15 minutes is made for hook-up. The parasite takes off separately and climbs at maximum power to 5,000 feet. It is refueled after retrieve to full launch weight.

POST STRIKE

Carrier

Same as basic radius mission except that carrier does not loiter and begins cruise back to base immediately after launch of

SECRET

parasite and descent to optimum altitude flight path.

Parasite Bomber

One minute maximum power warm-up and immediate launch at 25,000 feet, cruise at long range speeds and altitudes to a point 50 nautical miles from target. Descend to sea level, conduct 50 nautical mile run-in to target, drop bomb, conduct 2 minutes of evasive action over target and 50 nautical miles run-out at normal power. Climb at maximum power to optimum altitude long range flight path and cruise at long range speeds to post-strike base and land. Range free allowance includes one minute maximum power warm-up immediately prior to launch plus 5% of initial fuel load, plus fuel for 20 minutes cruise at sea level for reserve.

Parasite High Altitude Reconnaissance

One minute maximum power warm-up and immediate launch at 25,000 feet, cruise at long range speeds and altitudes to a point 50 nautical miles from target. Cruise at this altitude (combat altitude) 50 nautical miles to target, conduct 2 minutes evasive action and cruise out 50 nautical miles at normal power. Climb at maximum power to optimum altitude long range flight path and cruise at long range speeds to post-strike base and land. Range free allowances include one minute maximum power warm-up immediately prior to launch plus 5% of initial fuel plus fuel for 30 minutes cruise at sea level for reserve.

Parasite Low Altitude Reconnaissance

One minute maximum power warm-up and immediate launch at

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25,000 feet, cruise at long range speeds and altitudes to a point 50 nautical miles from target. Descend to sea level, conduct 50 nautical mile run-in to target, conduct 2 minutes of evasive action over target and 50 nautical mile run-out at normal power. Climb at maximum power to optimum altitude long range flight path and cruise at long range speeds to post-strike base and land. Range free allowances include one minute maximum power warm-up immediately prior to launch, plus 5% of initial fuel load, plus fuel for 20 minutes cruise at sea level for reserve.

BASIC RANGE

Carrier

Same as basic radius mission except that carrier does not loiter and begins cruise back to base immediately after launch of parasite and descent to optimum flight path.

Parasite Bomber

One minute maximum power warm-up and immediate launch at 25,000 feet, climb on course to optimum altitude for cruise at long range speed. Cruise to target, drop bomb and land. Range free allowances include one minute maximum power warm-up immediately prior to launch plus 5% of initial fuel plus fuel for 20 minutes cruise at sea level.

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Take-off Distance

Take-off distance curves, Figures 27 and 28, are presented for the B-36D and B-36H parasite carrier airplanes. These same curves may be used for the RB-36D and RB-36H airplanes, respectively, since the take-off distance increase due to the slightly greater drag of the RB-36 airplanes is negligible. An added drag increment of $\Delta C_D = .0060$ to the standard airplanes increases the take-off distances by only 3%.

Take-off distances determined from these curves for stripped parasite carrier versions will be conservative.

Fuel used for warm-up, taxi, and take-off for the B and RB-36D Carriers is 3550 pounds. For the B and RB-36H Carriers it is 4200 pounds.

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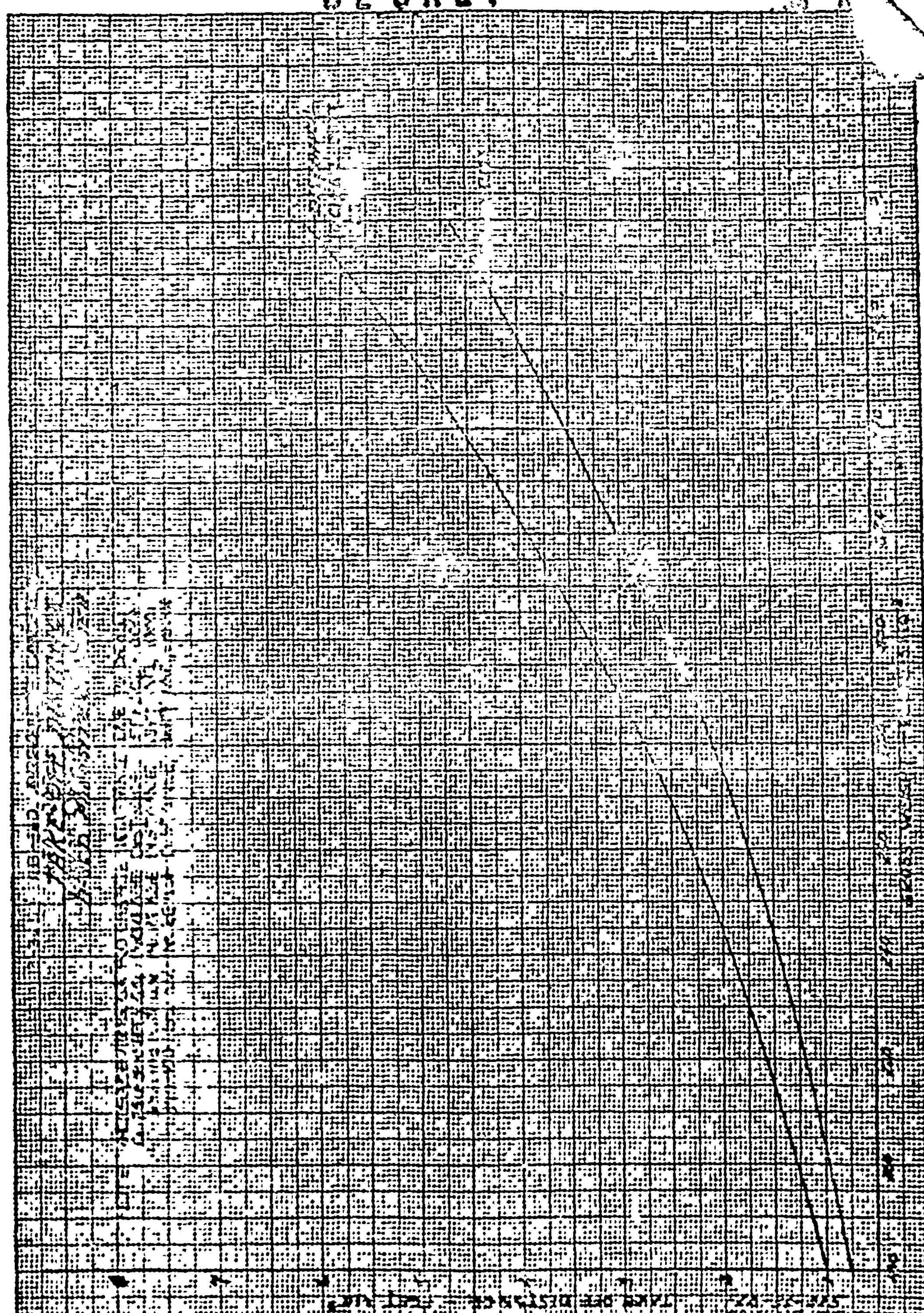

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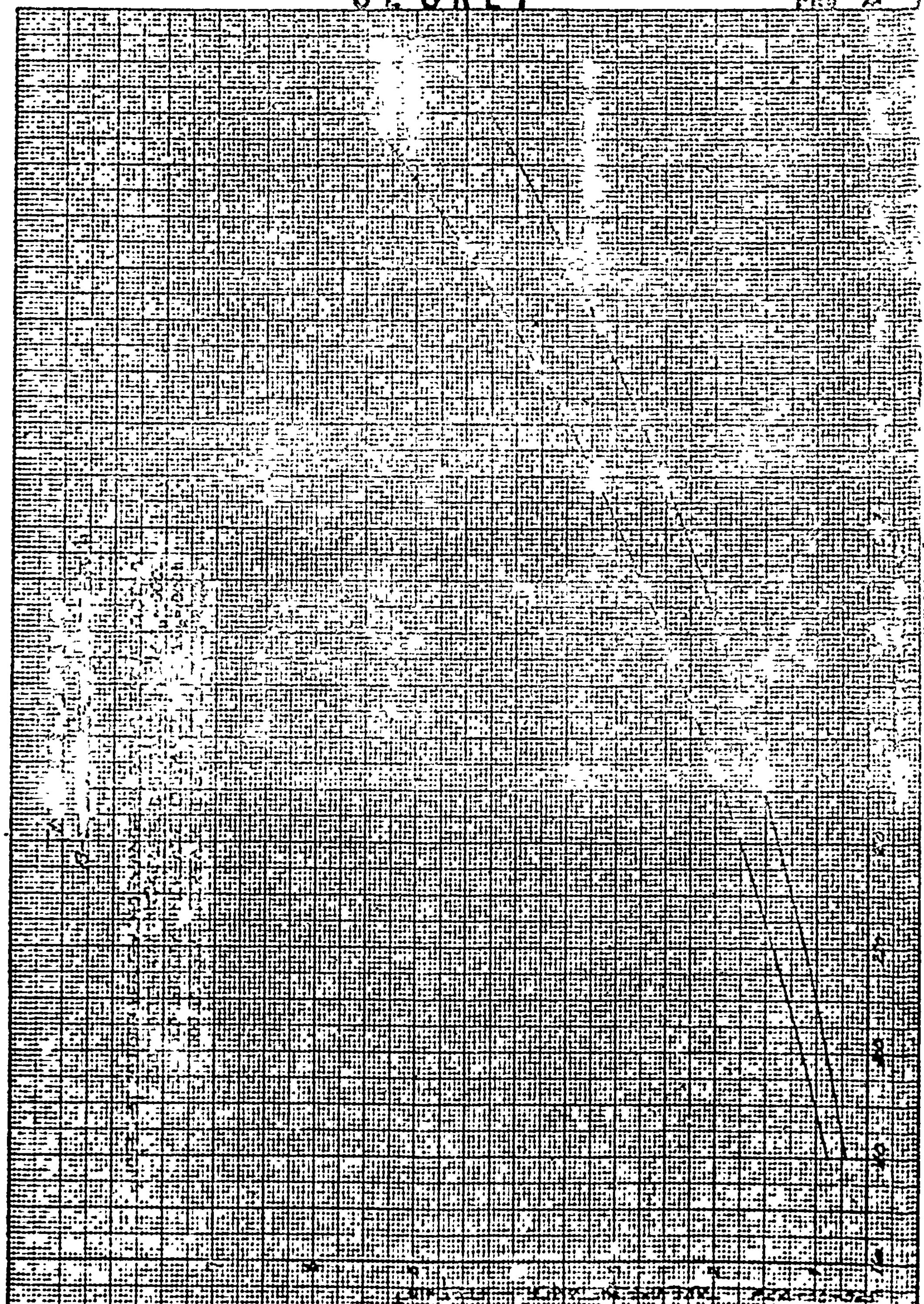

FIG. 2

Performance Summaries

Altitude performance summaries are presented from Figure 3 through Figure 10. Airspeed and climb corrections due to drag are tabulated on each chart. For a stripped carrier increase airspeed equivalent to a ΔC_D decrease of .0013.

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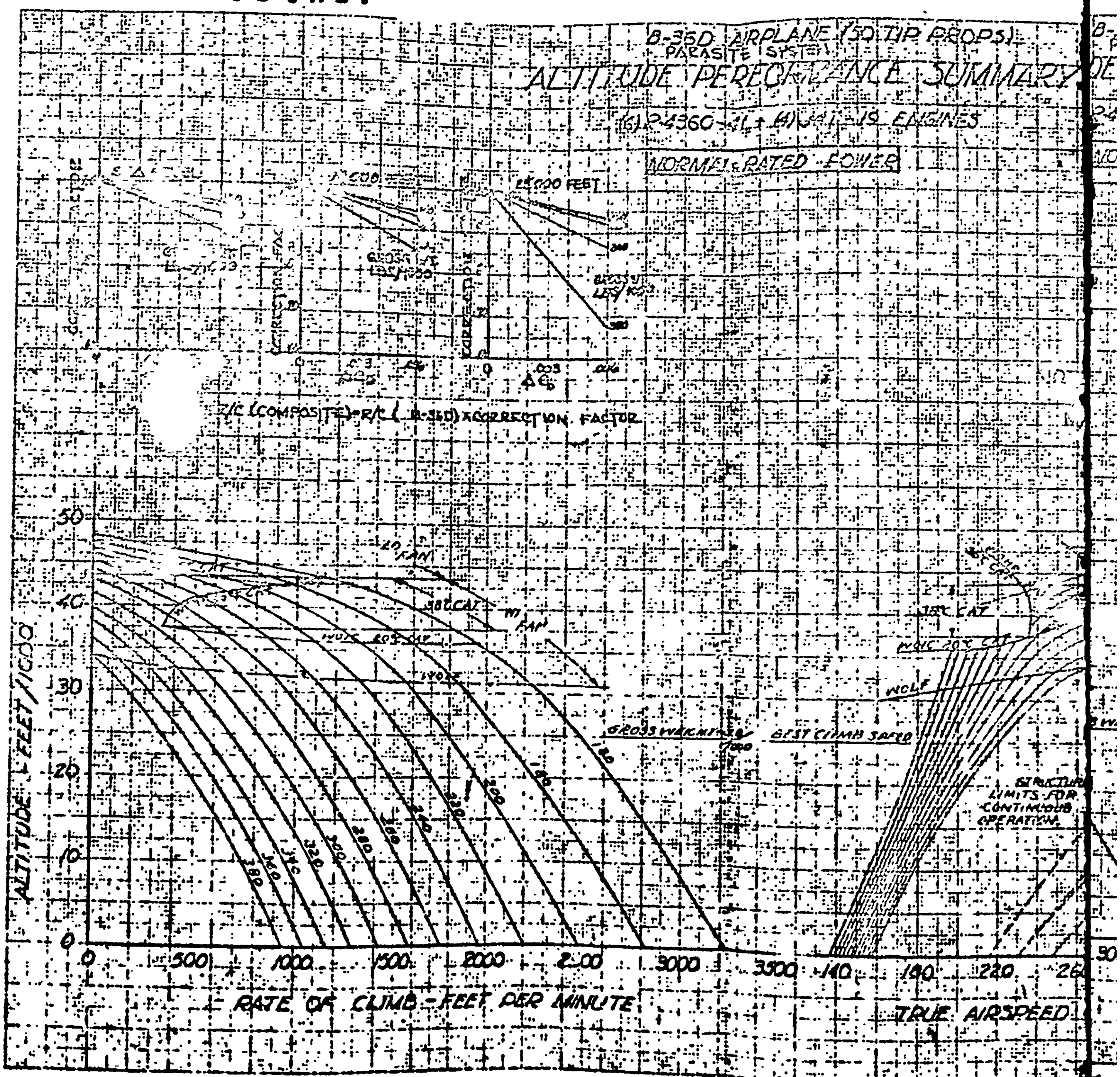

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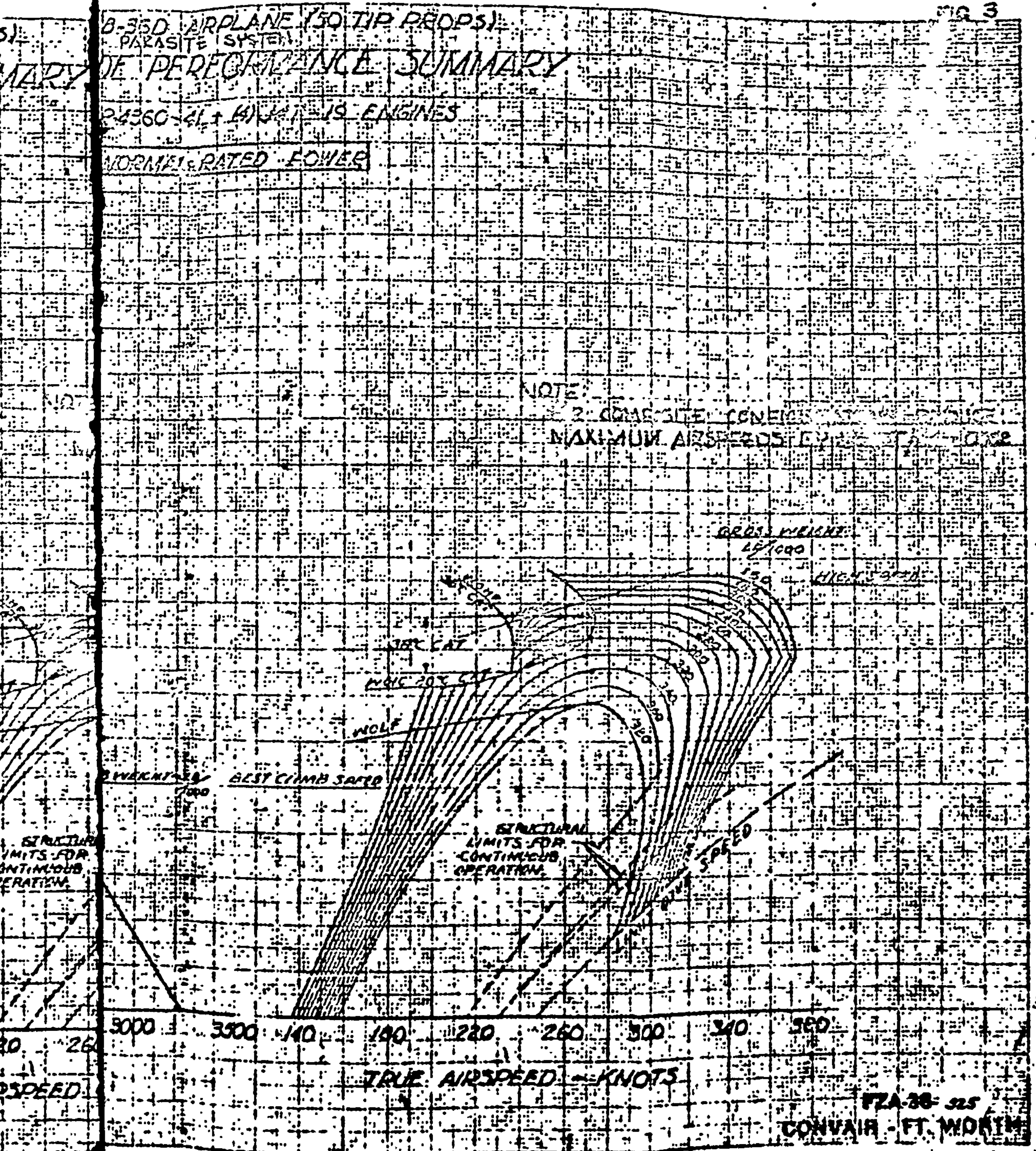
B-36D AIRPLANE (30 TIP PROPS)
PARASITE SYSTEM
PERFORMANCE SUMMARY
R4360-41 + (4) J47-19 ENGINES
NORMAL RATED POWER
NOTE:
MAXIMUM AIRSPEEDS
GROSS WEIGHT
HIGH SPEED
WOLF
BEST CLIMB SPEED
STRUCTURAL LIMITS FOR CONTINUOUS OPERATION
3000
3500
140
180
220
260
300
340
380
TRUE AIRSPEED — KNOTS
FZA-36-325
CONVAIR - FT. WORTH

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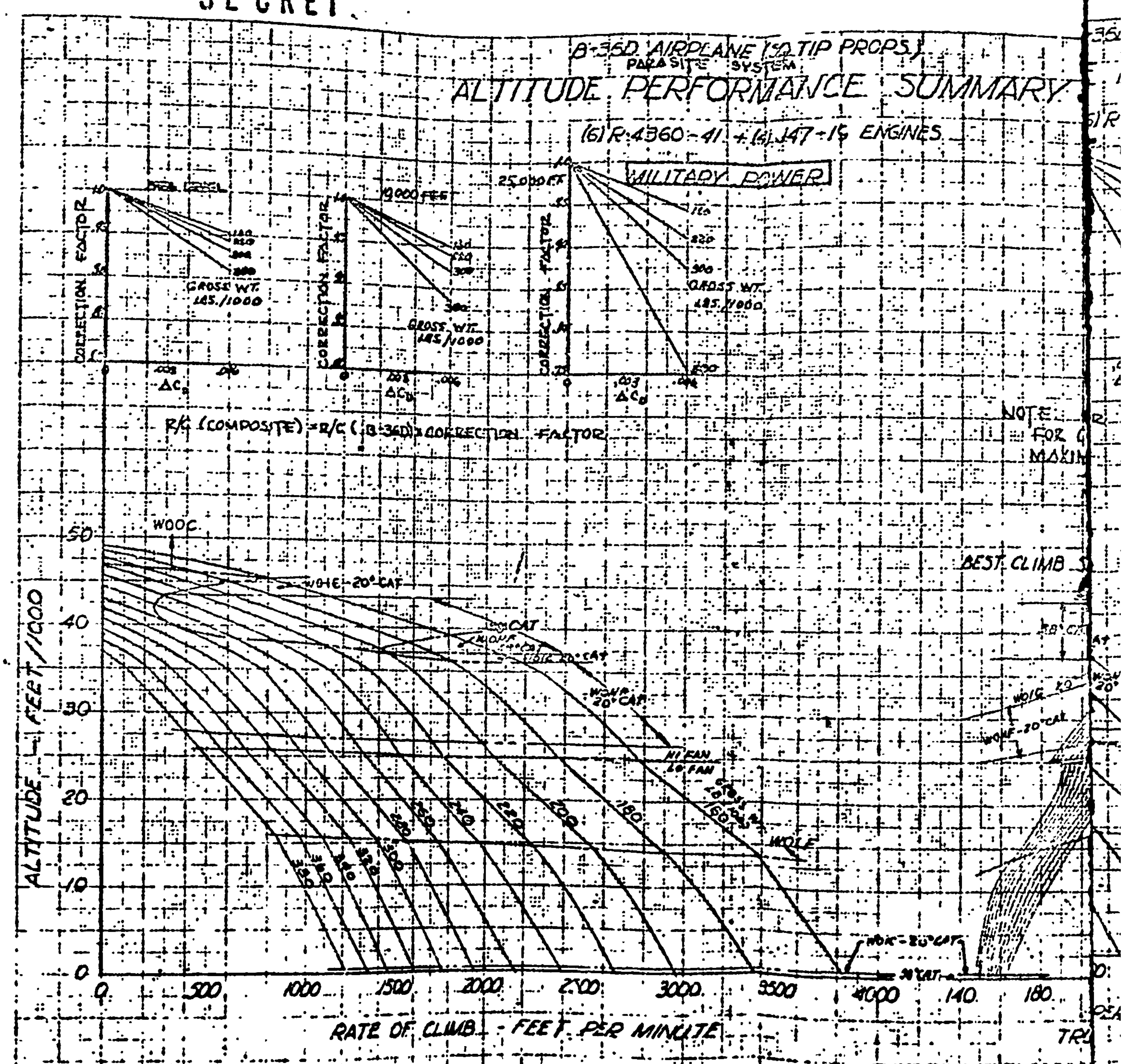

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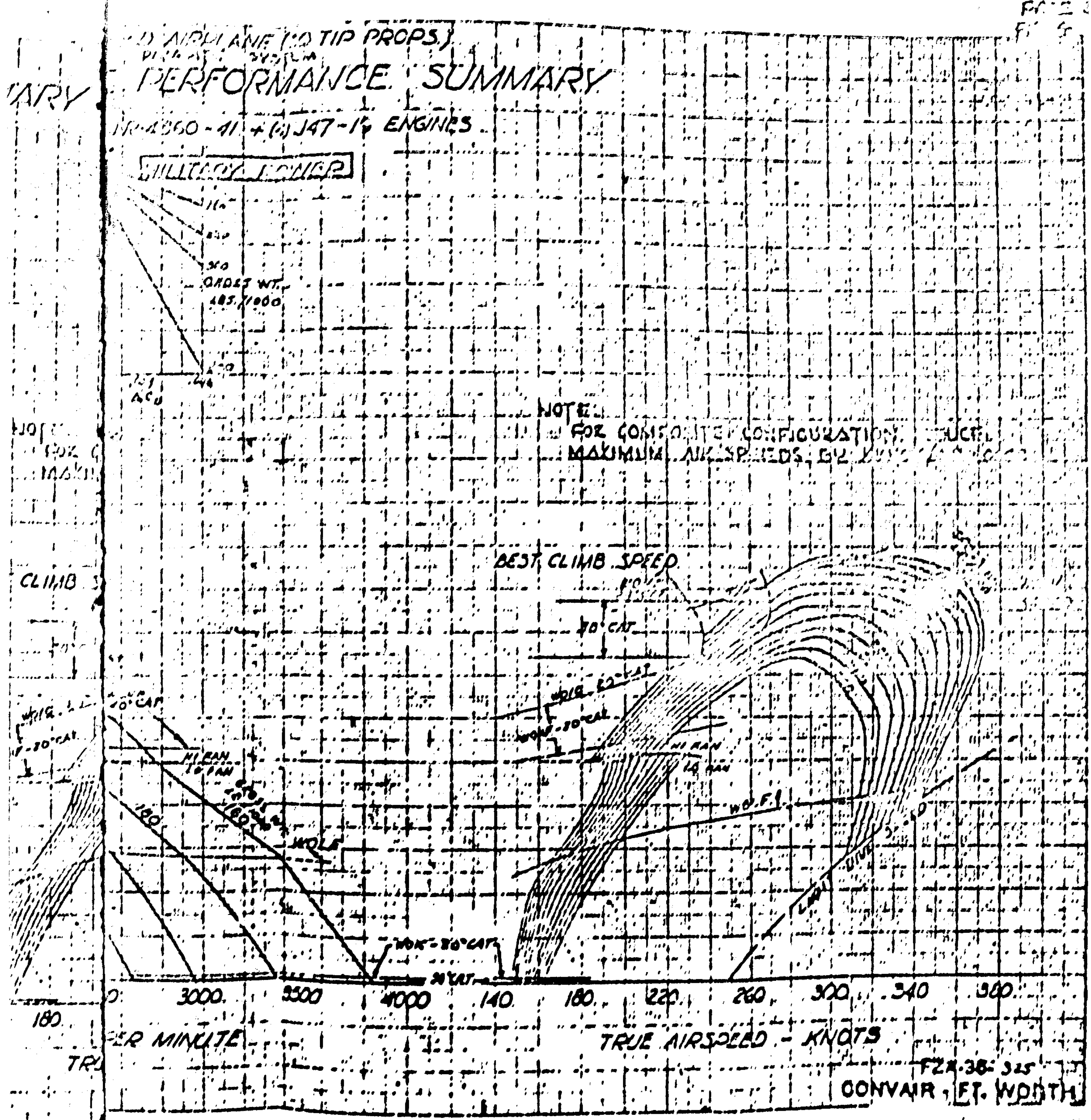
AIRPLANE (2 TIP PROPS)
PERFORMANCE SUMMARY
R-4360-41 + (4) J47-19 ENGINES
MILITARY POWER
GROSS WT.
LBS./1000
NOTE:
FOR COMPOSITE CONFIGURATION
MAXIMUM AIRSPEEDS
BEST CLIMB SPEED
70° CAT.
W/O F.I.
LIMIT DIVE
3000.
3500
4000
140
180
220
260
300
340
380
TRUE AIRSPEED - KNOTS
FZA-36-325
CONVAIR, FT. WORTH

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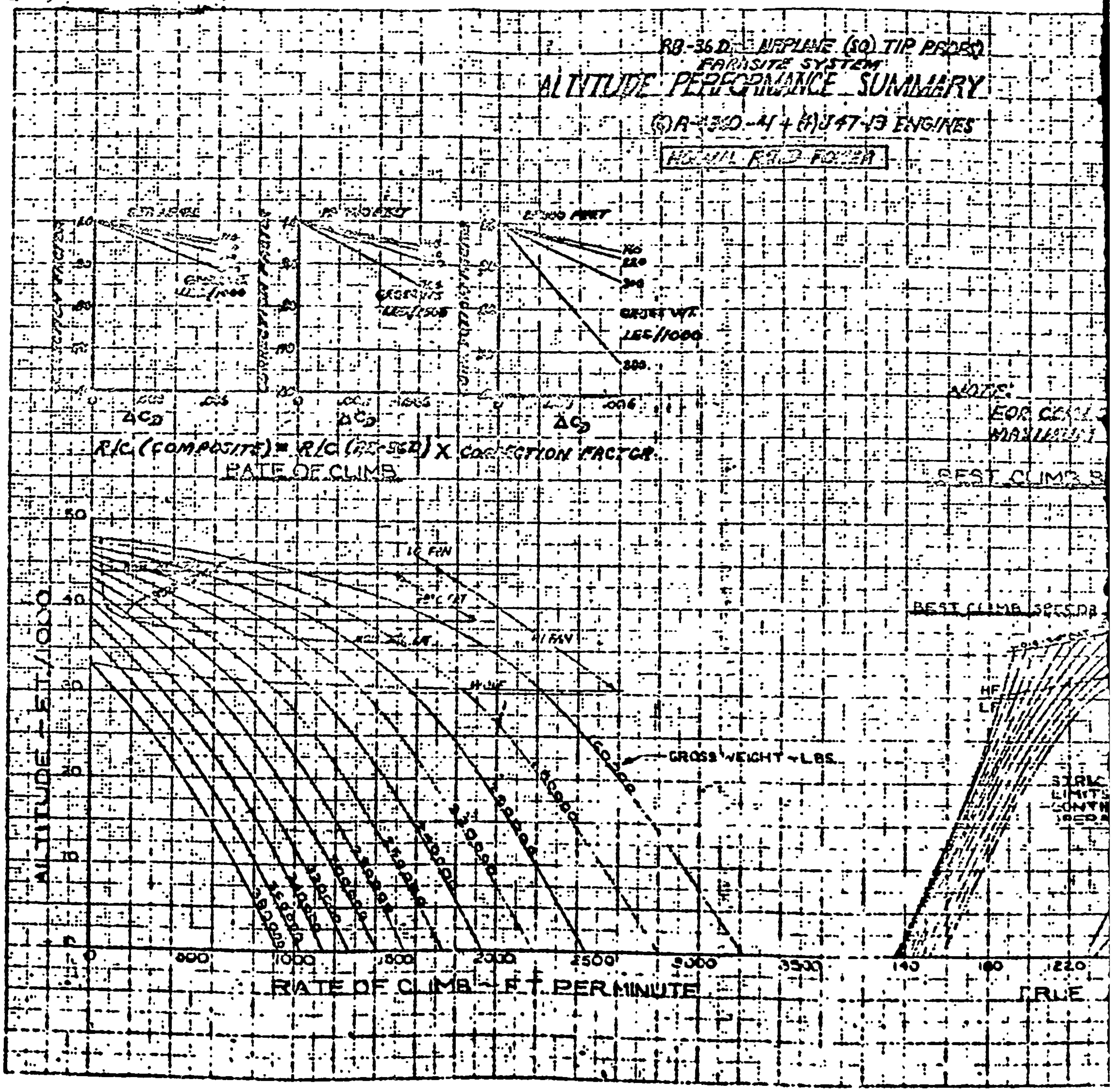
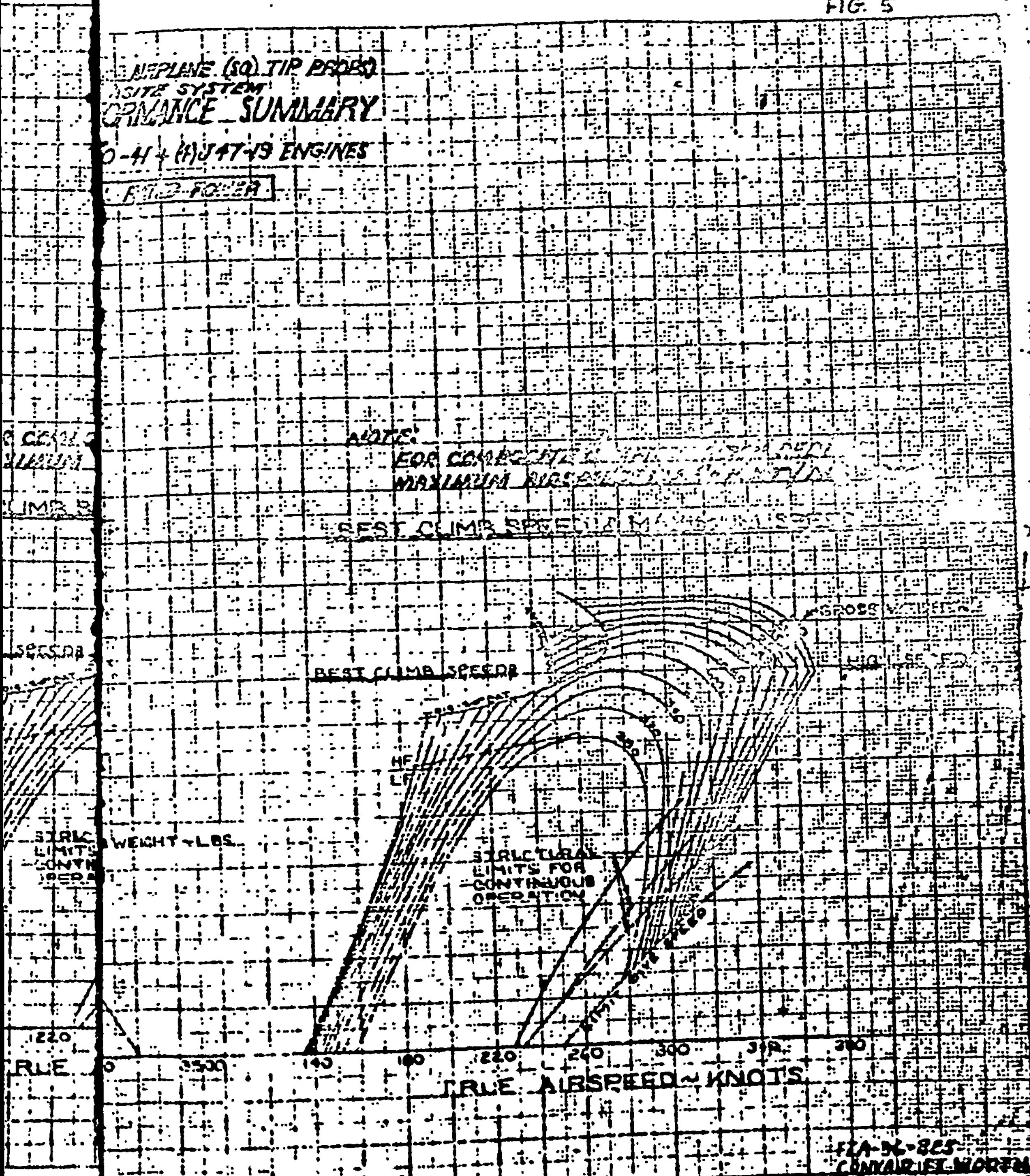


RB-36D AIRPLANE (SQ) TIP PROBE
FARNSITE SYSTEM
ALTITUDE PERFORMANCE SUMMARY
(6)R-4360-41 + (4)J47-19 ENGINES
GROSS WT. LBS/1000
ΔC_D
R/C (COMPOSITE) = R/C (RB-36D) X CORRECTION FACTOR
RATE OF CLIMB
GROSS WEIGHT - LBS.
ALTITUDE - FT./1000
RATE OF CLIMB - FT. PER MINUTE
NOTE:
BEST CLIMB SPEED

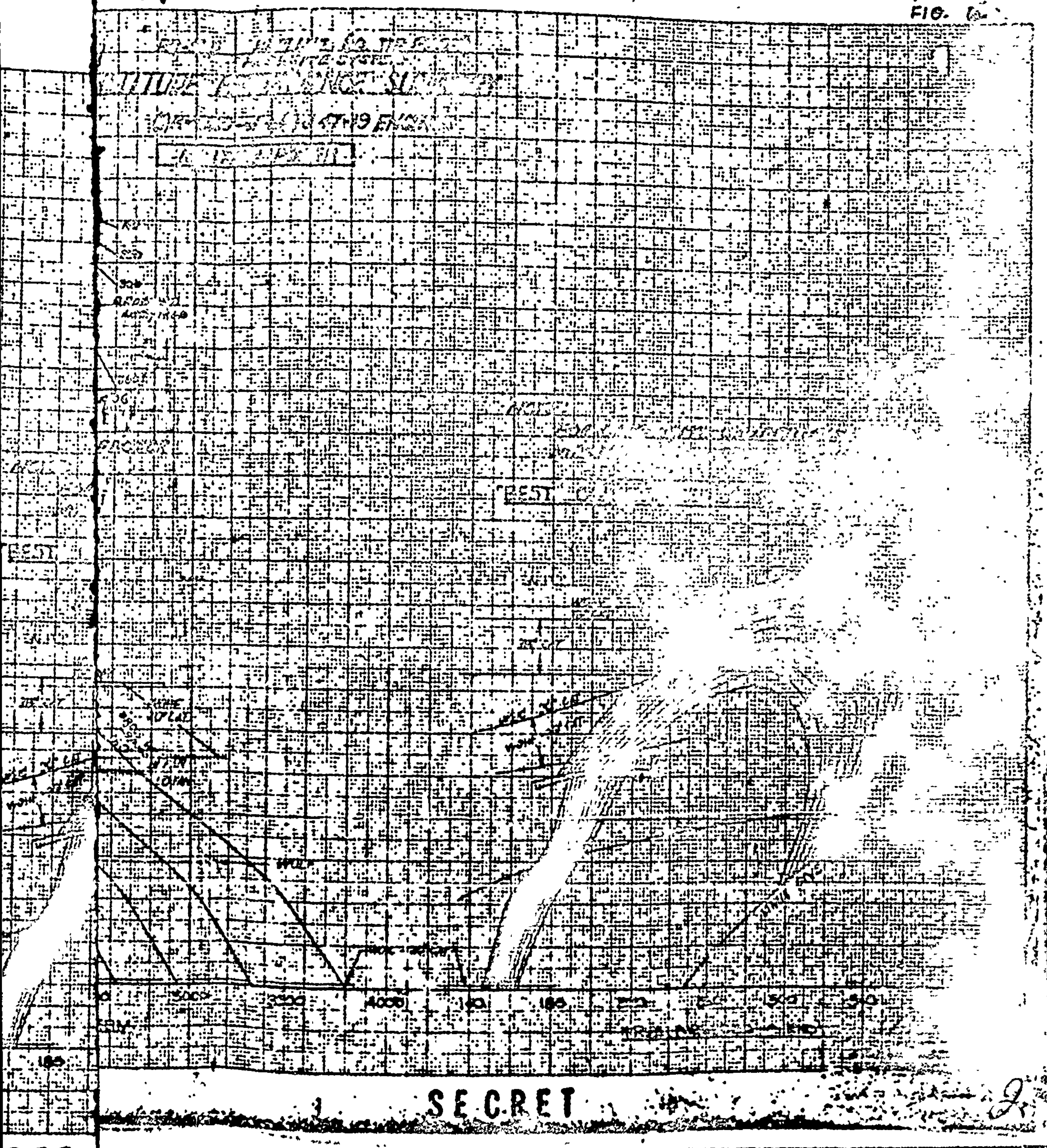
SE

PAGE 32
FIG. 5


SUMMARY
J47-19 ENGINES
NOTE:
BEST CLIMB SPEEDS
WEIGHT ~LBS.
STRUCTURAL LIMITS FOR CONTINUOUS OPERATION
140
180
220
260
300
380
TRUE AIRSPEED ~ KNOTS
CONVAIR FT. WORTH

SECRET

SECRET



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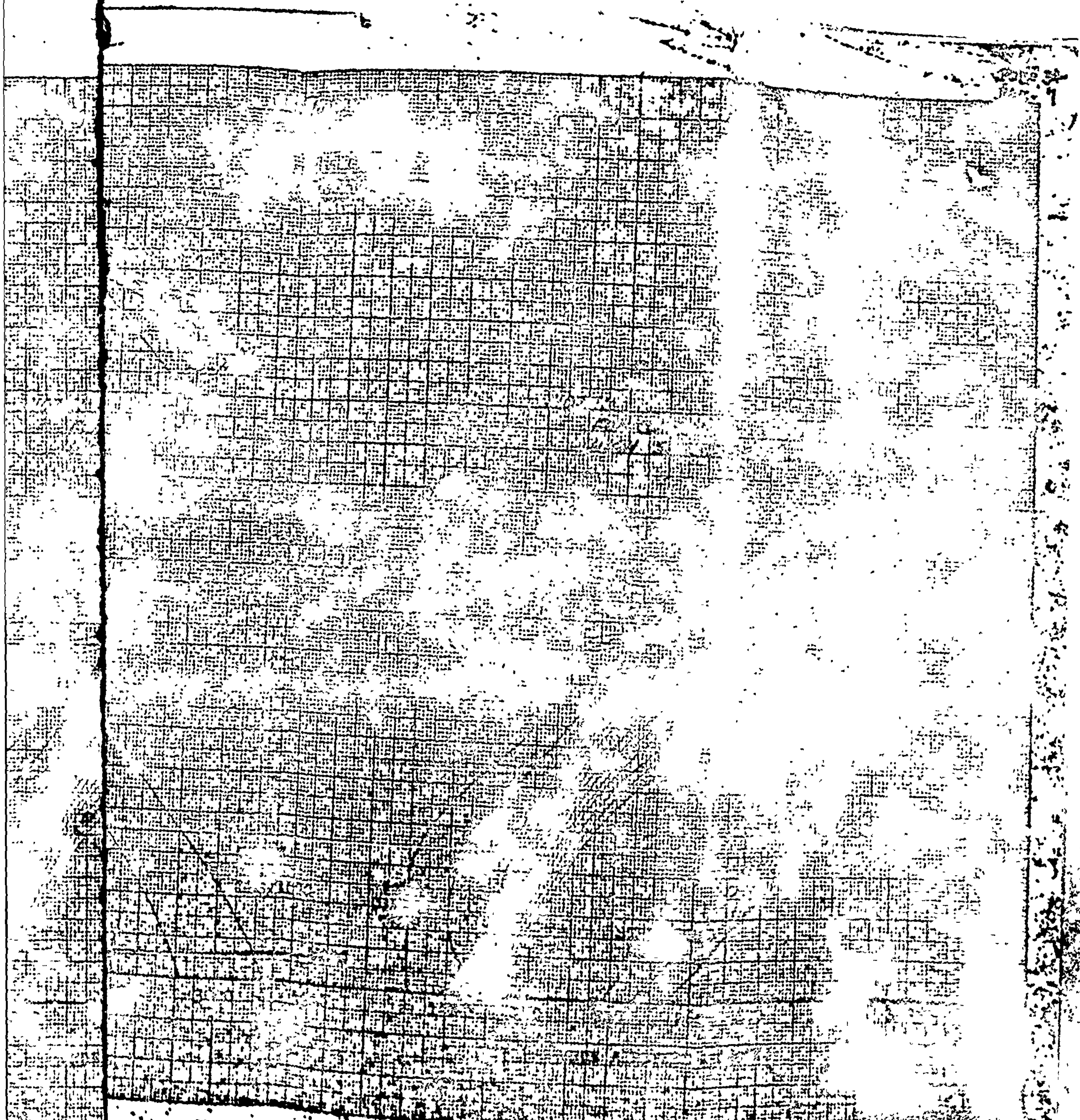

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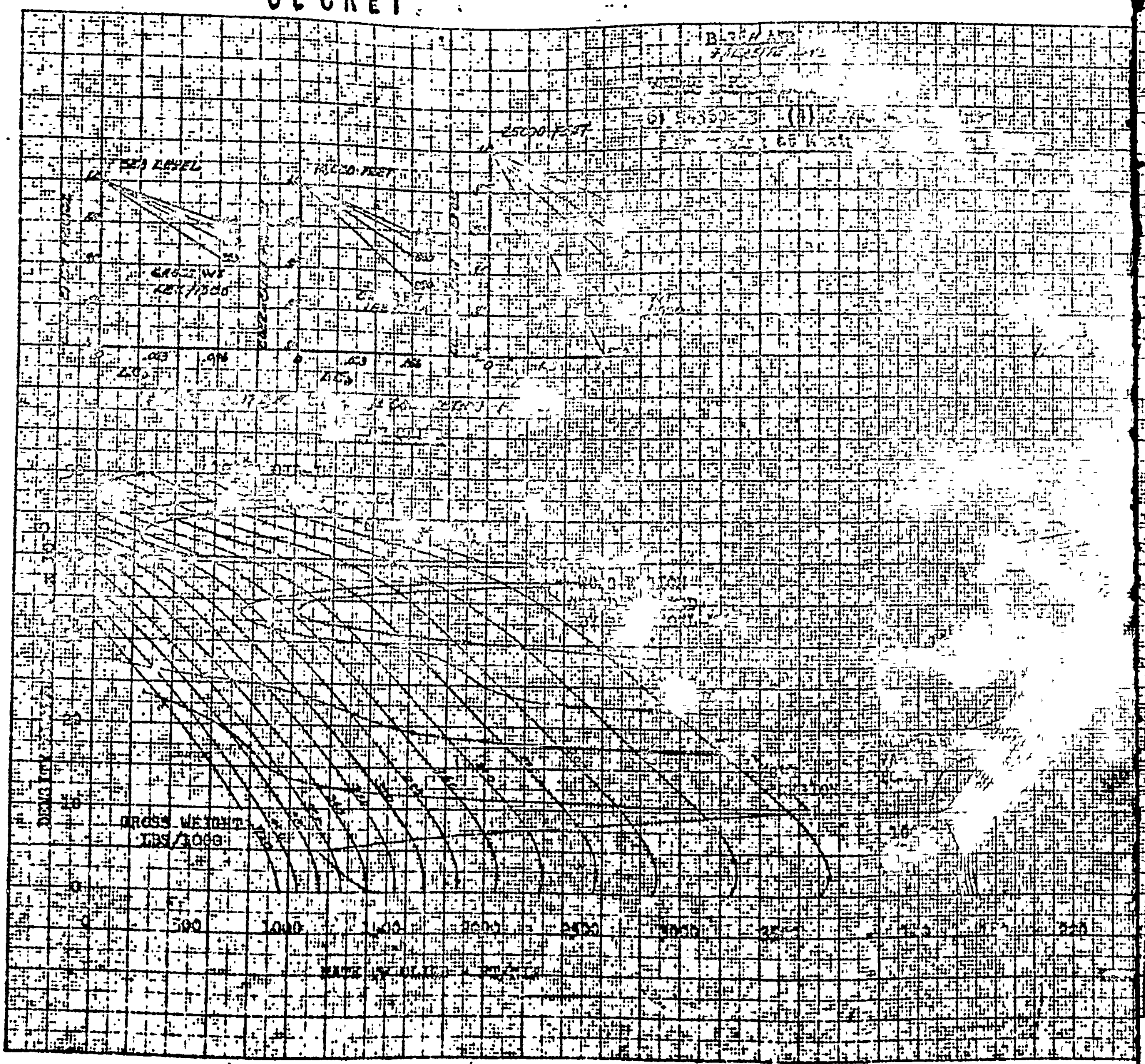
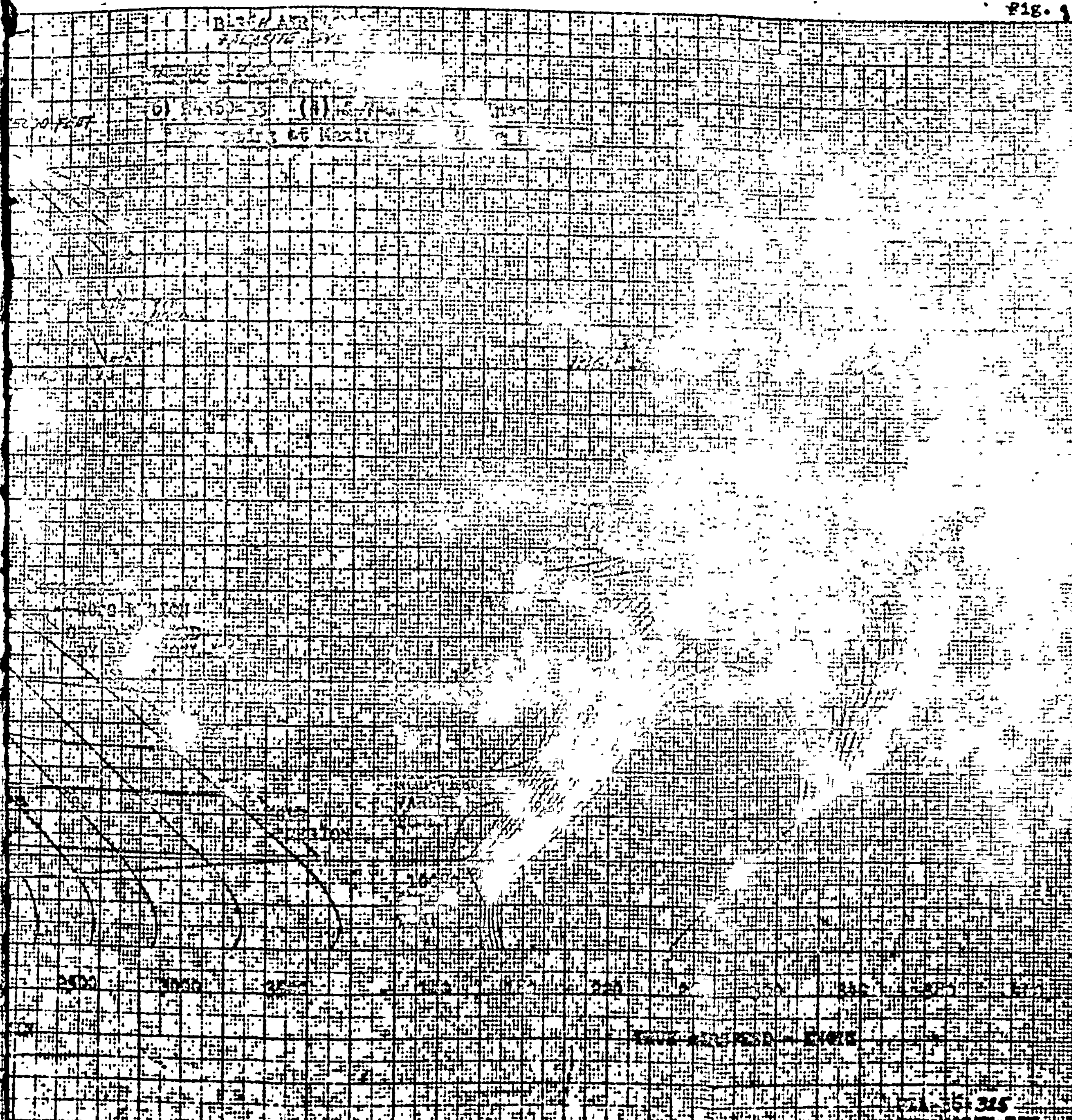


SEA LEVEL
25000 FEET
DENSITY
GROSS WEIGHT
LBS/1000
0
500
1000
2000
2500
3000

SECR

Page 35
Fig. 1



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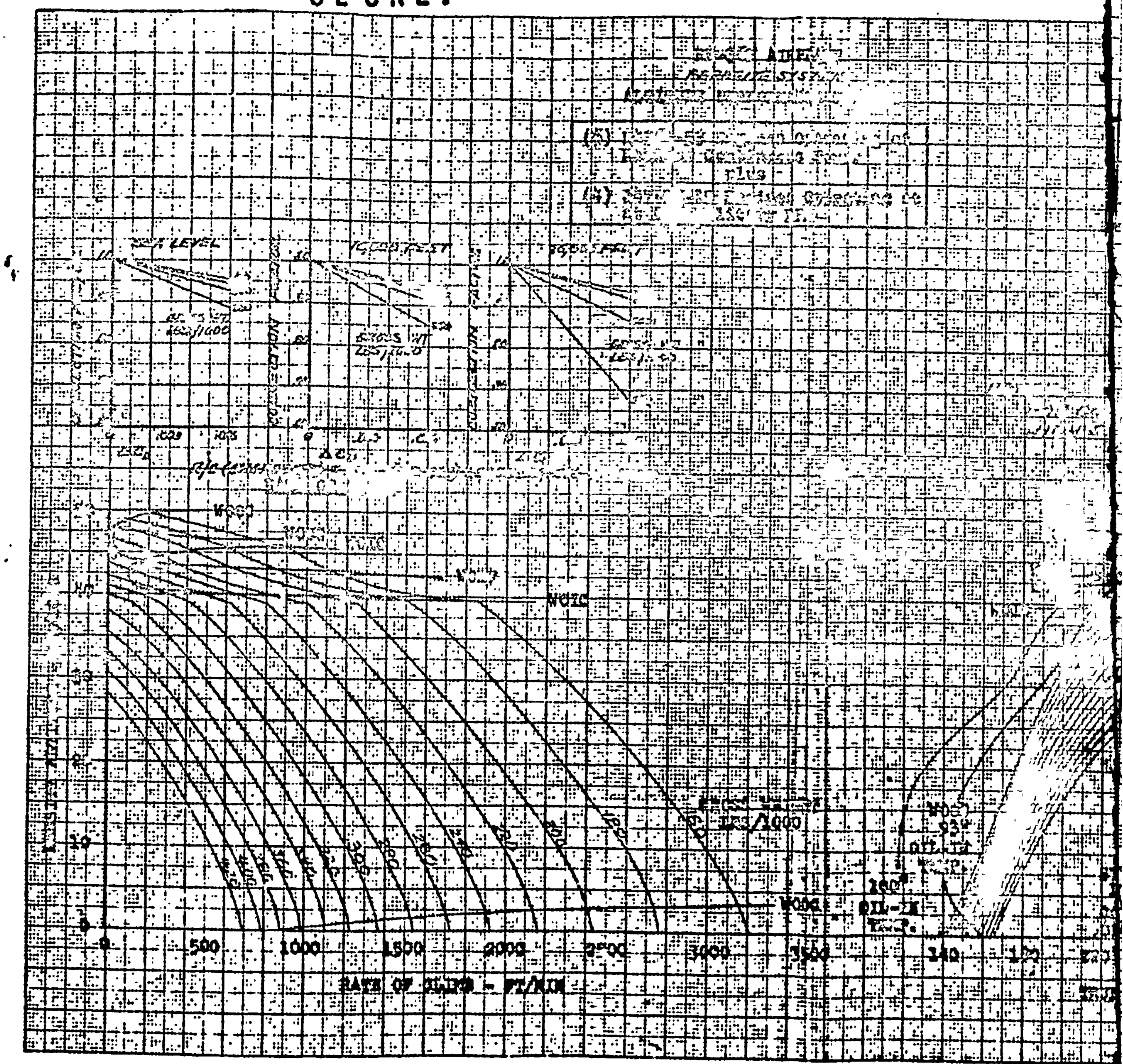
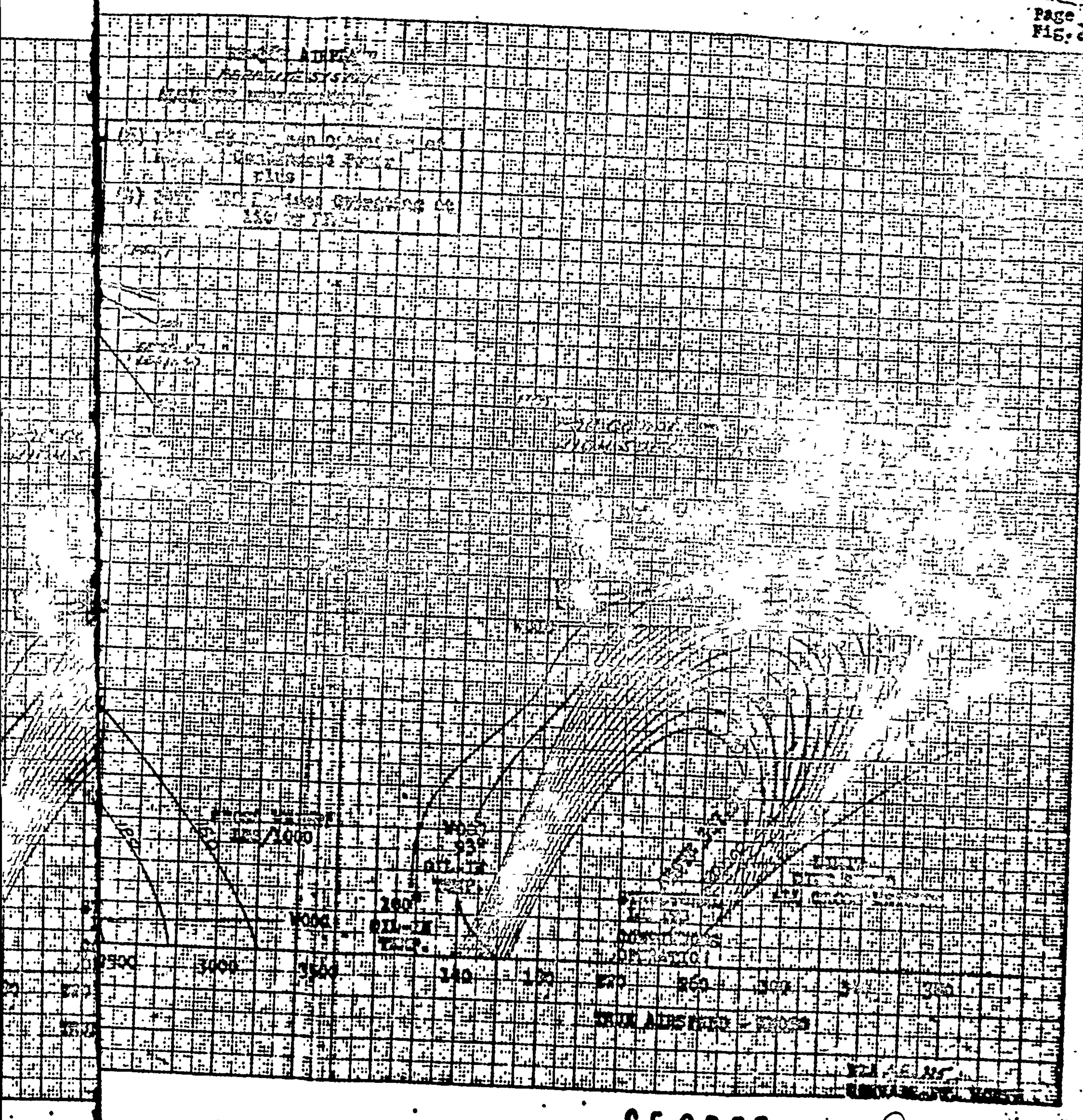

SEA LEVEL
GROSS WT LBS/1000
WOOD
WOIC
RATE OF CLIMB - FT/MIN
0
500
1000
1500
2000
2500
3000
3500
140



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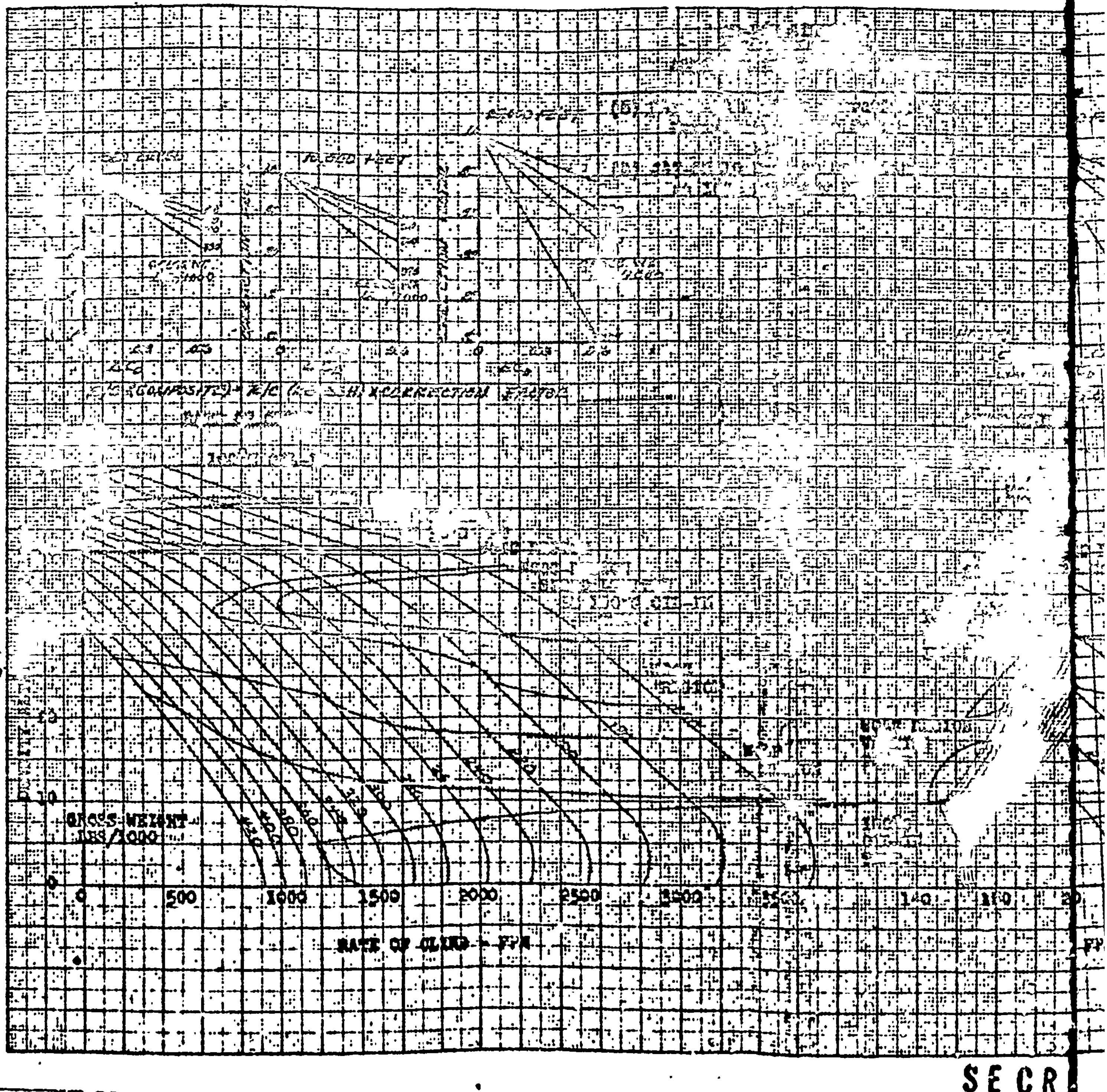
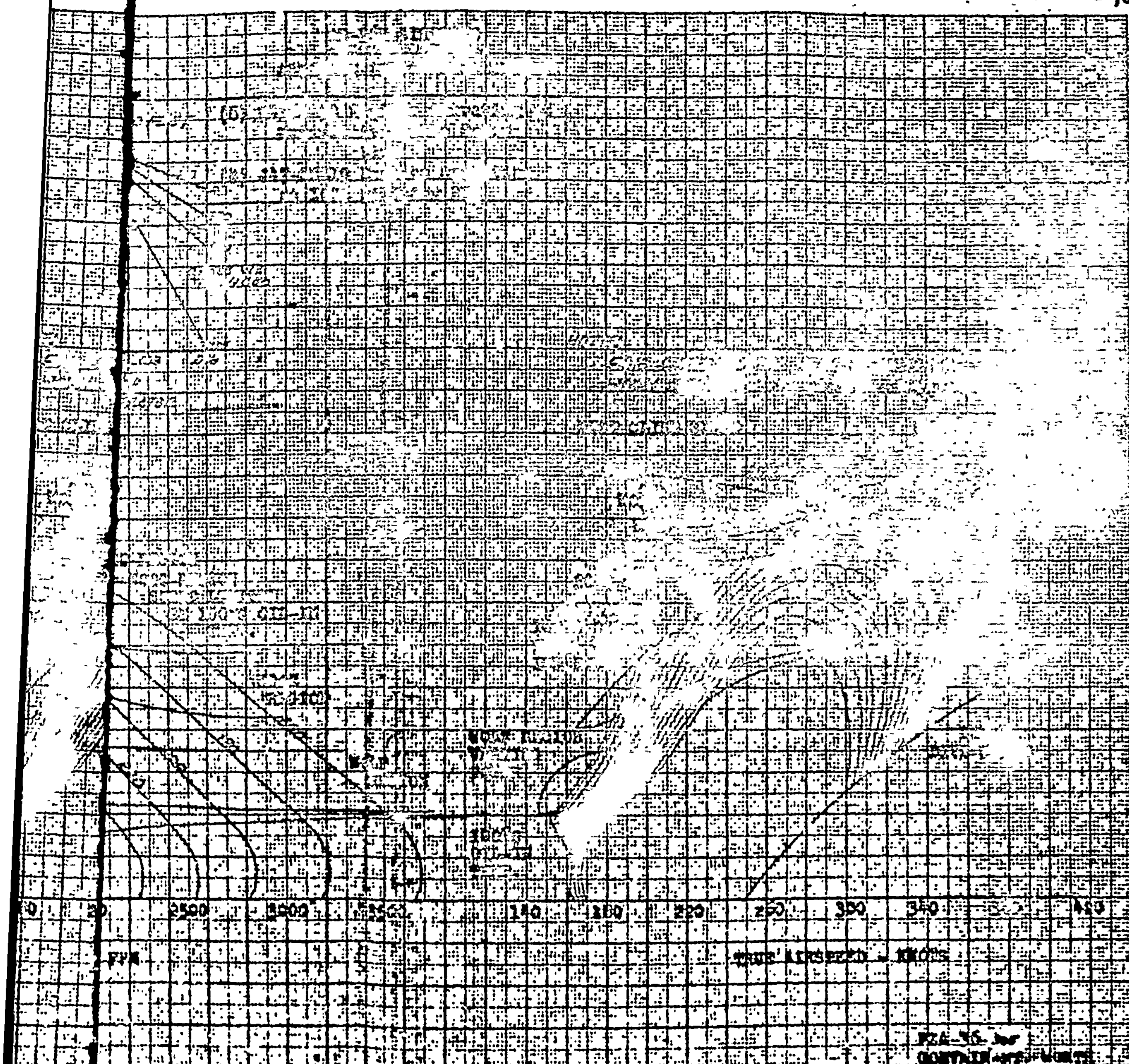


GROSS WEIGHT
LBS/1000
0
500
1000
1500
2000
2500
3000
RATE OF CLIMB - FPM

SECR


2500
3000
3500
140
180
220
260
300
340
420
FPM
TRUE AIRSPEED - KNOTS

Climb Control Data

Climb control data are presented in Figures 39, 40, and 41. Climb from sea level to 5000 feet on each chart is at maximum continuous power. Climb from 5000 feet to altitude is at long range climb. The kinetic energy correction has been incorporated in the development of the charts. Rate of climb corrections due to drag increases are presented on each chart as an equivalent weight correction. For drag changes other than these presented, the correction can be obtained by interpolation.

Using the standard climb charts for stripped airplane climb performance, reduce stripped airplane gross weight by 4000 pounds.

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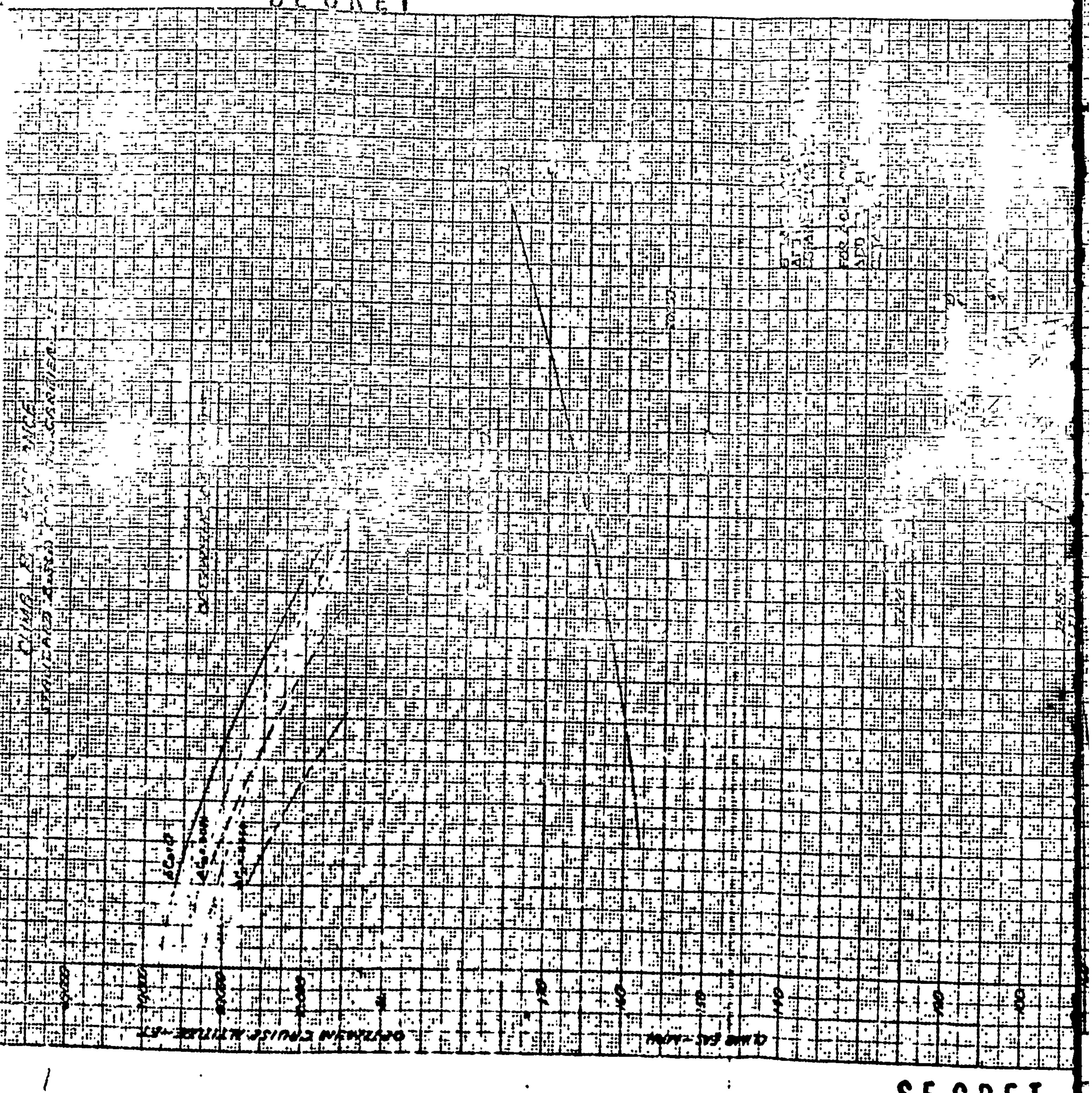

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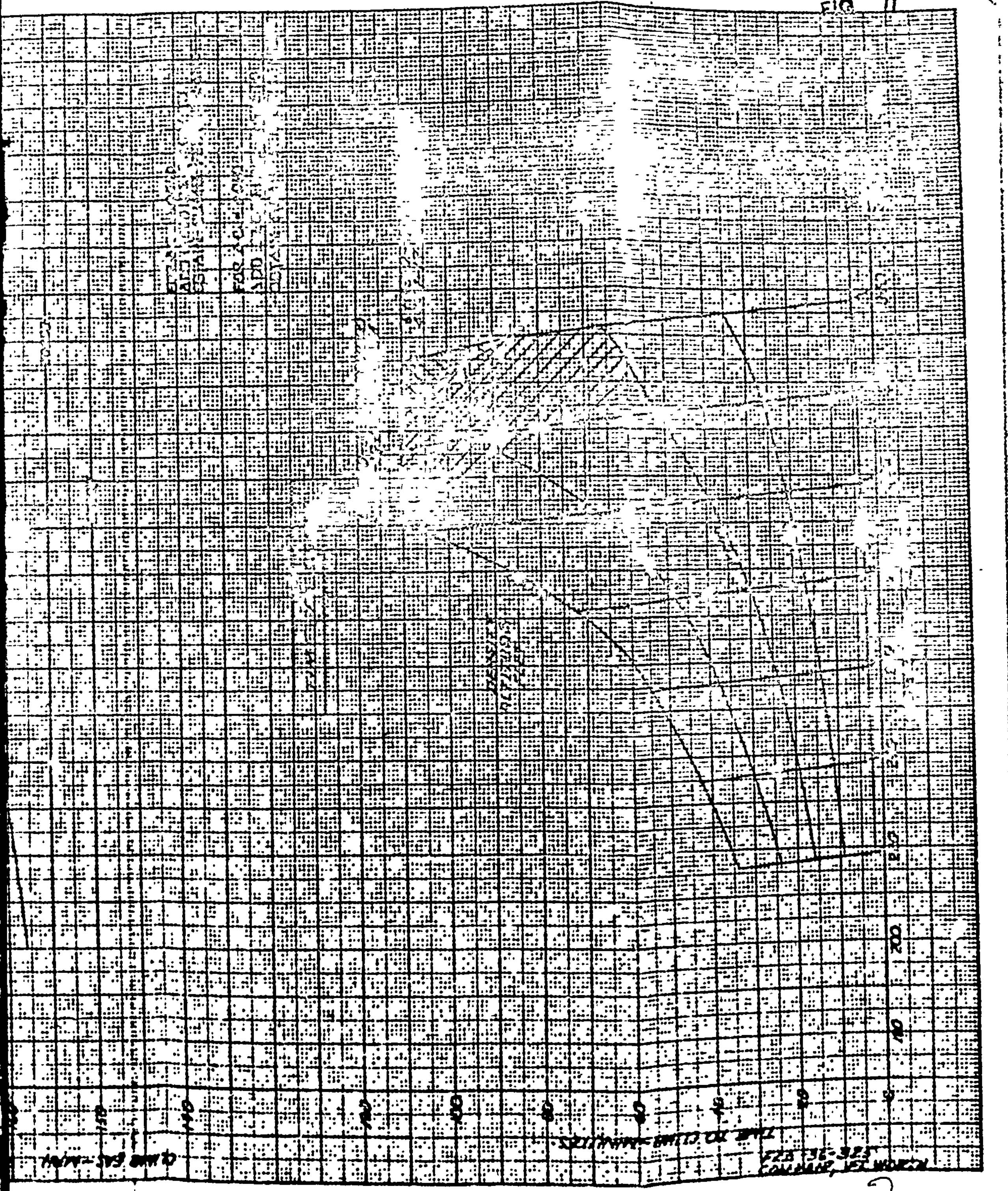
AGE 39
FIG 11



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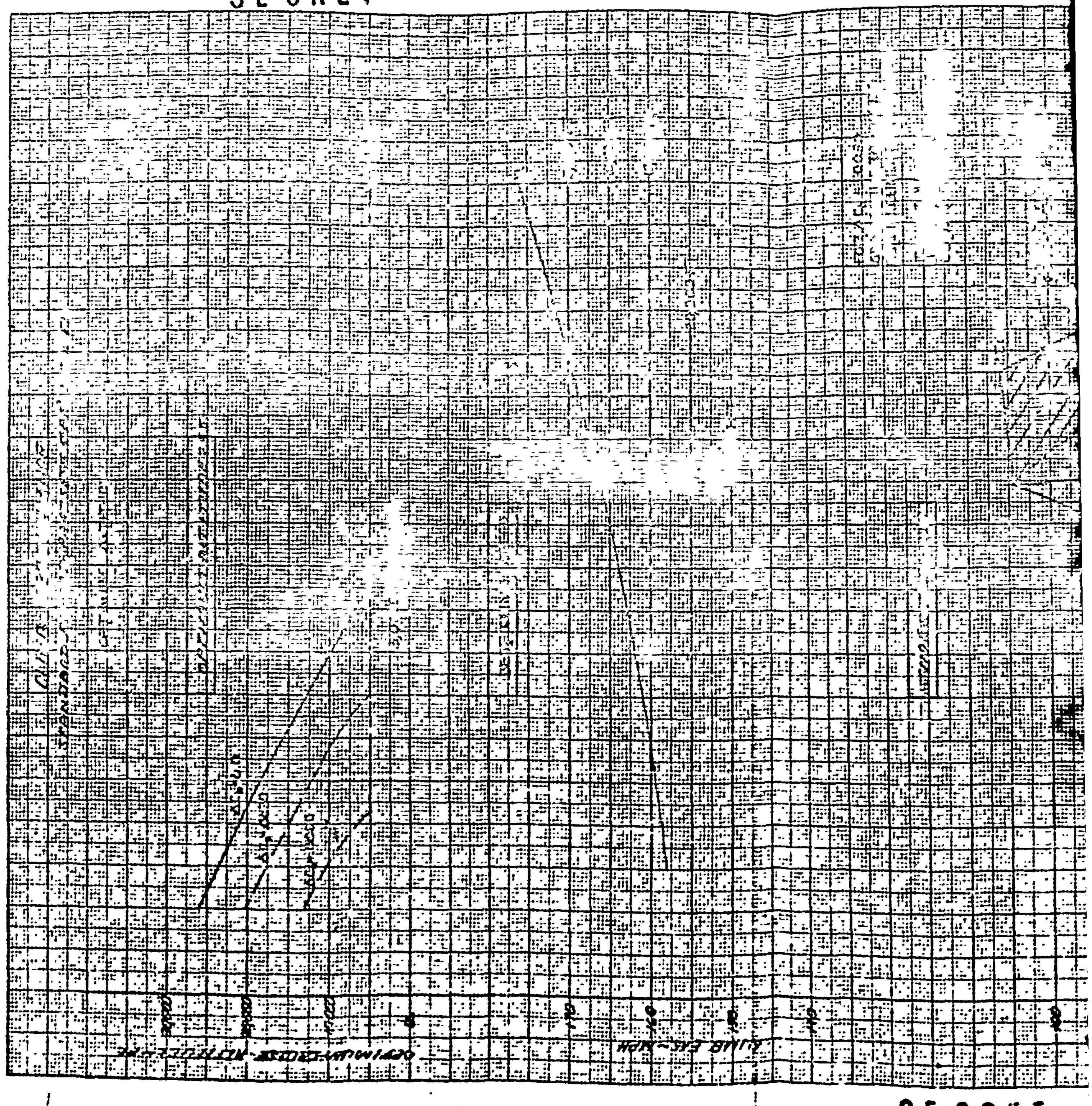

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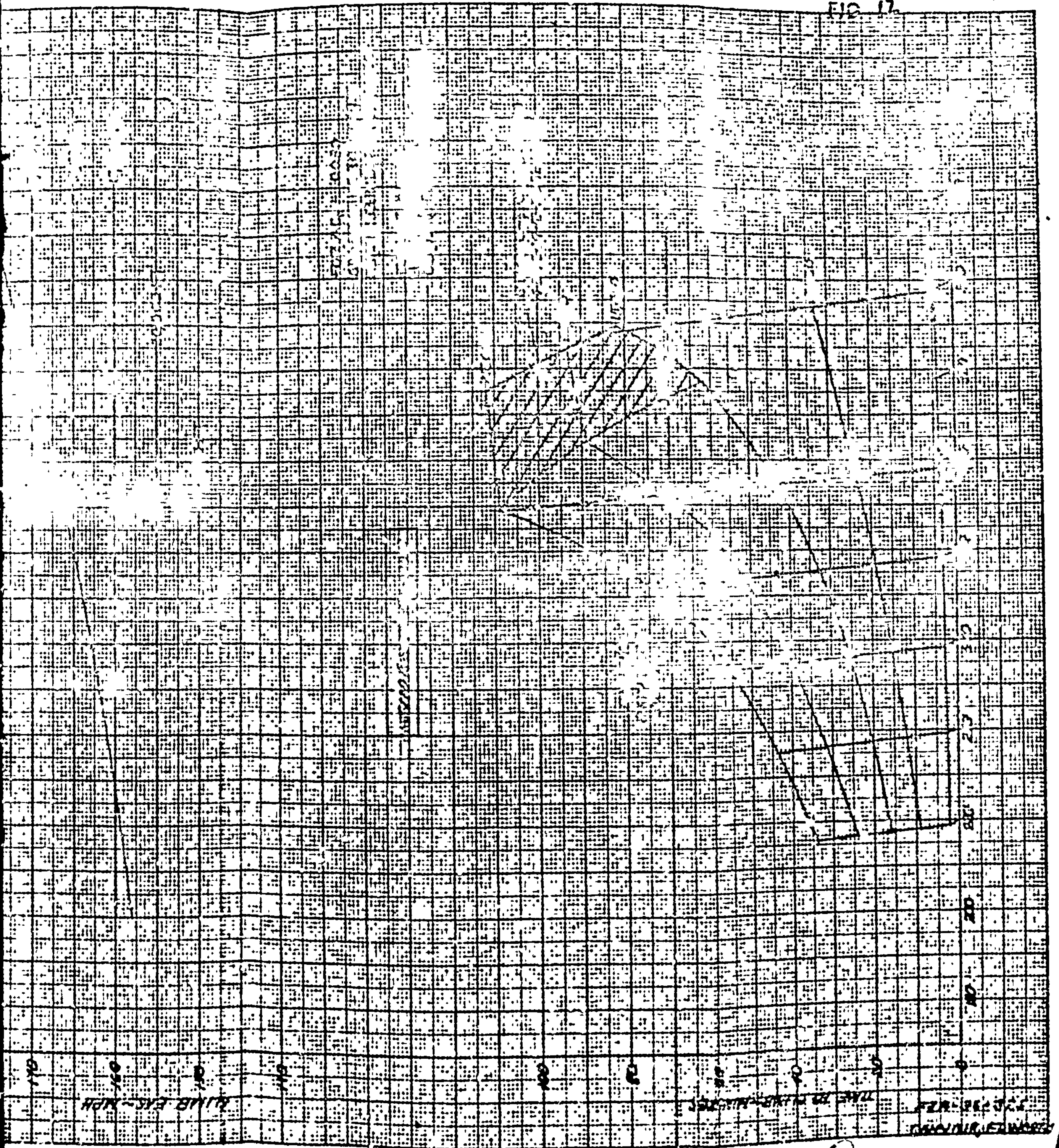
PAGE 40

FIG. 12



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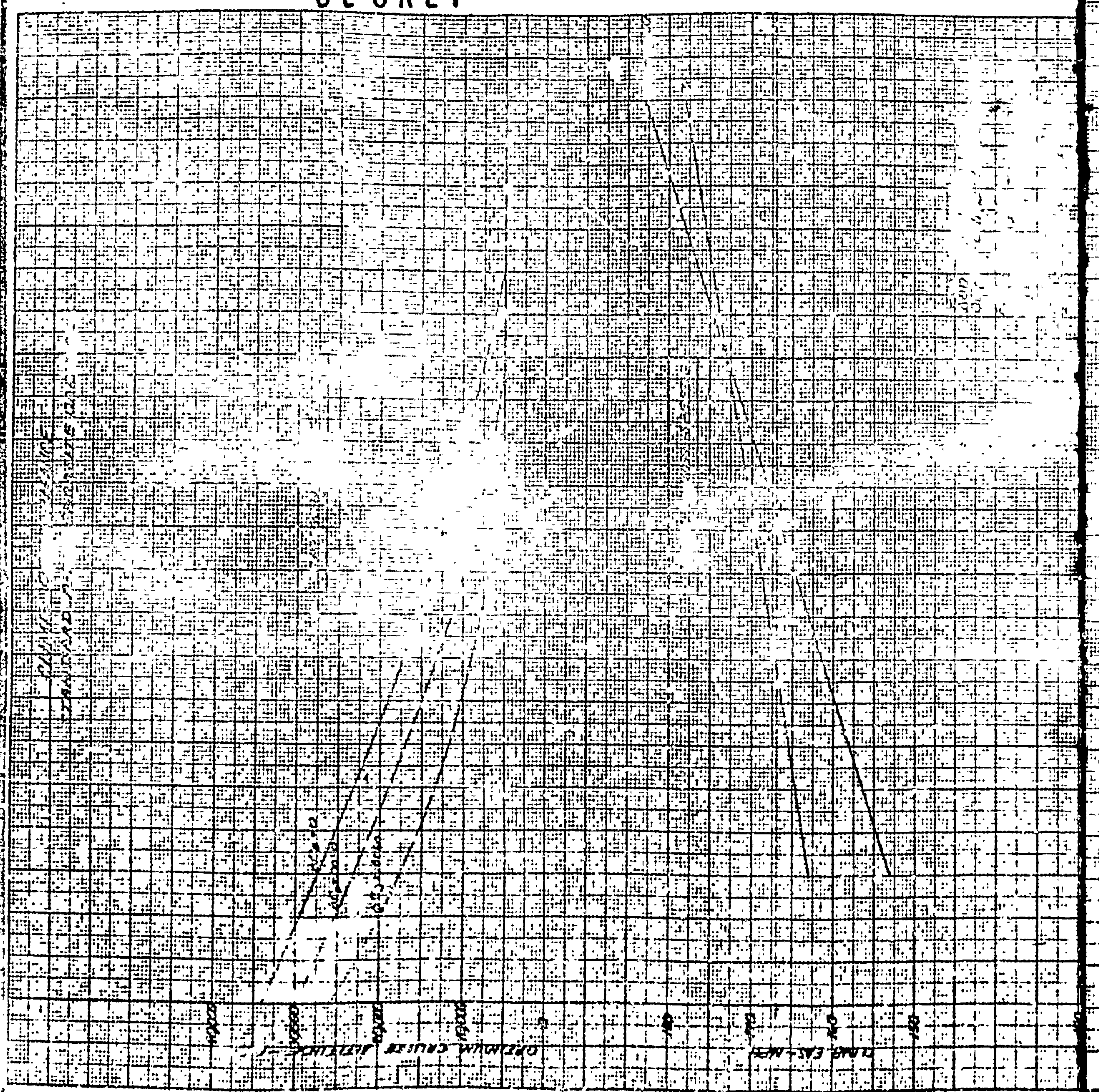

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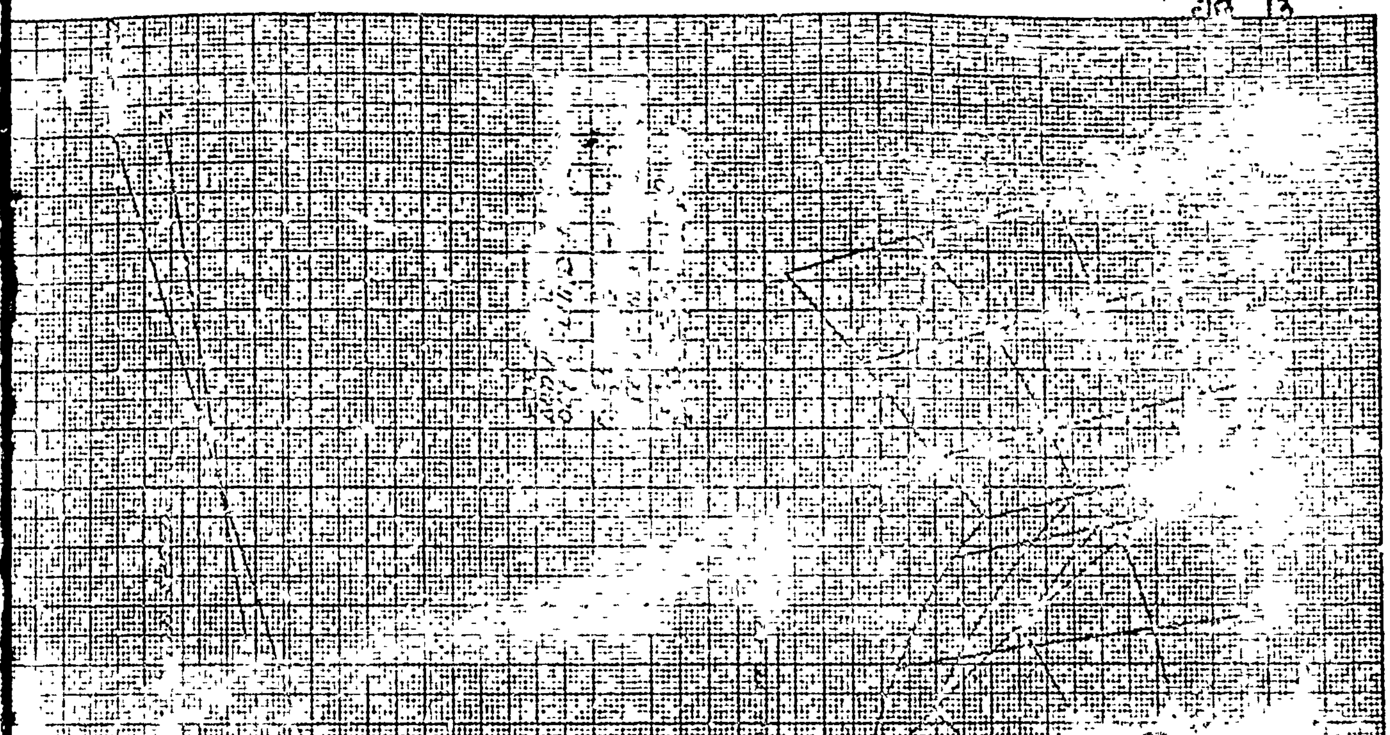

Long Range Cruise

Basic long range operating data at optimum altitude and 35,000 feet are presented from Figure 14 through Figure 21.

Corrections of range performance for stripped carriers can be obtained by the equivalent weight relationships shown on page 62.

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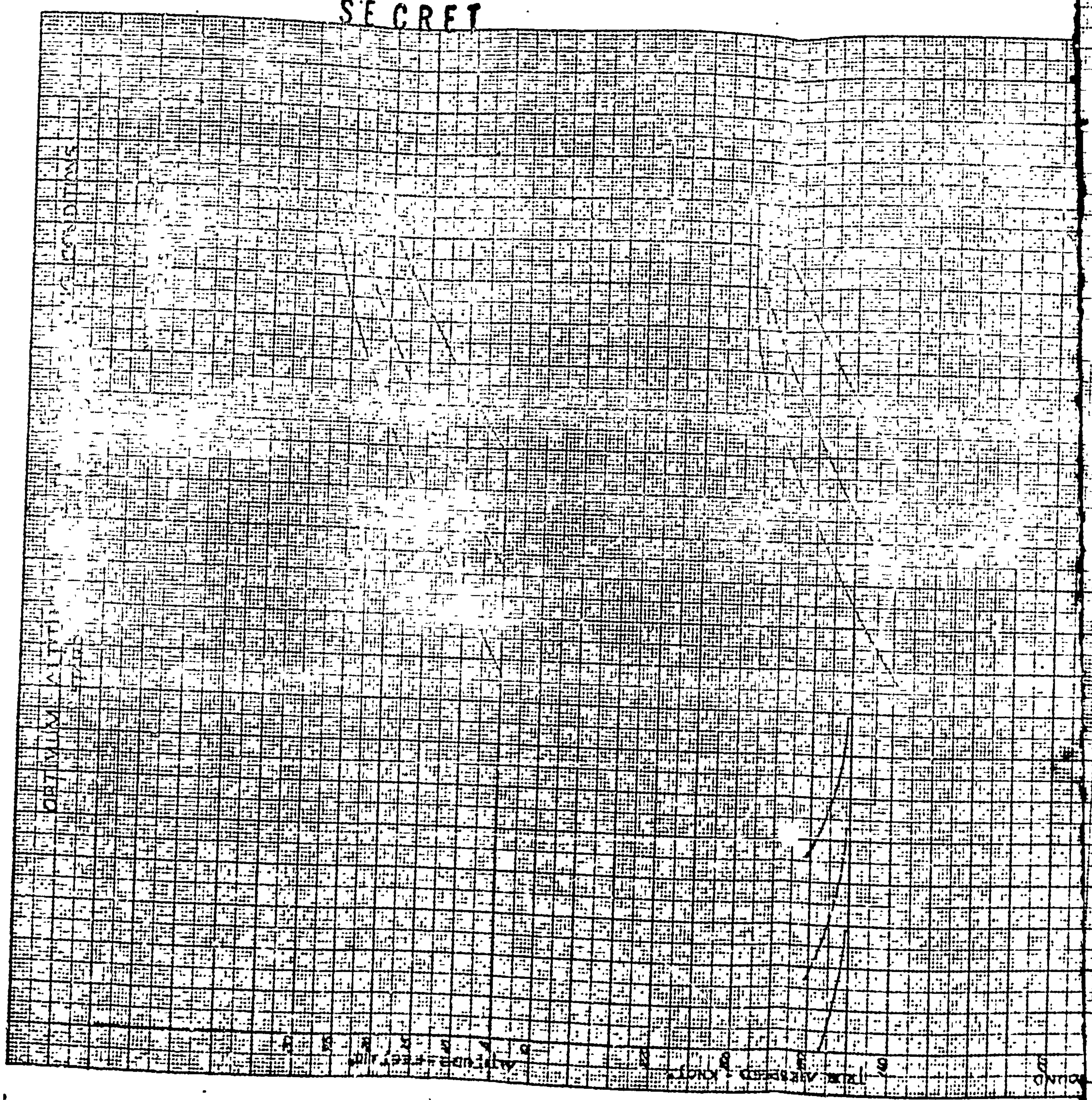

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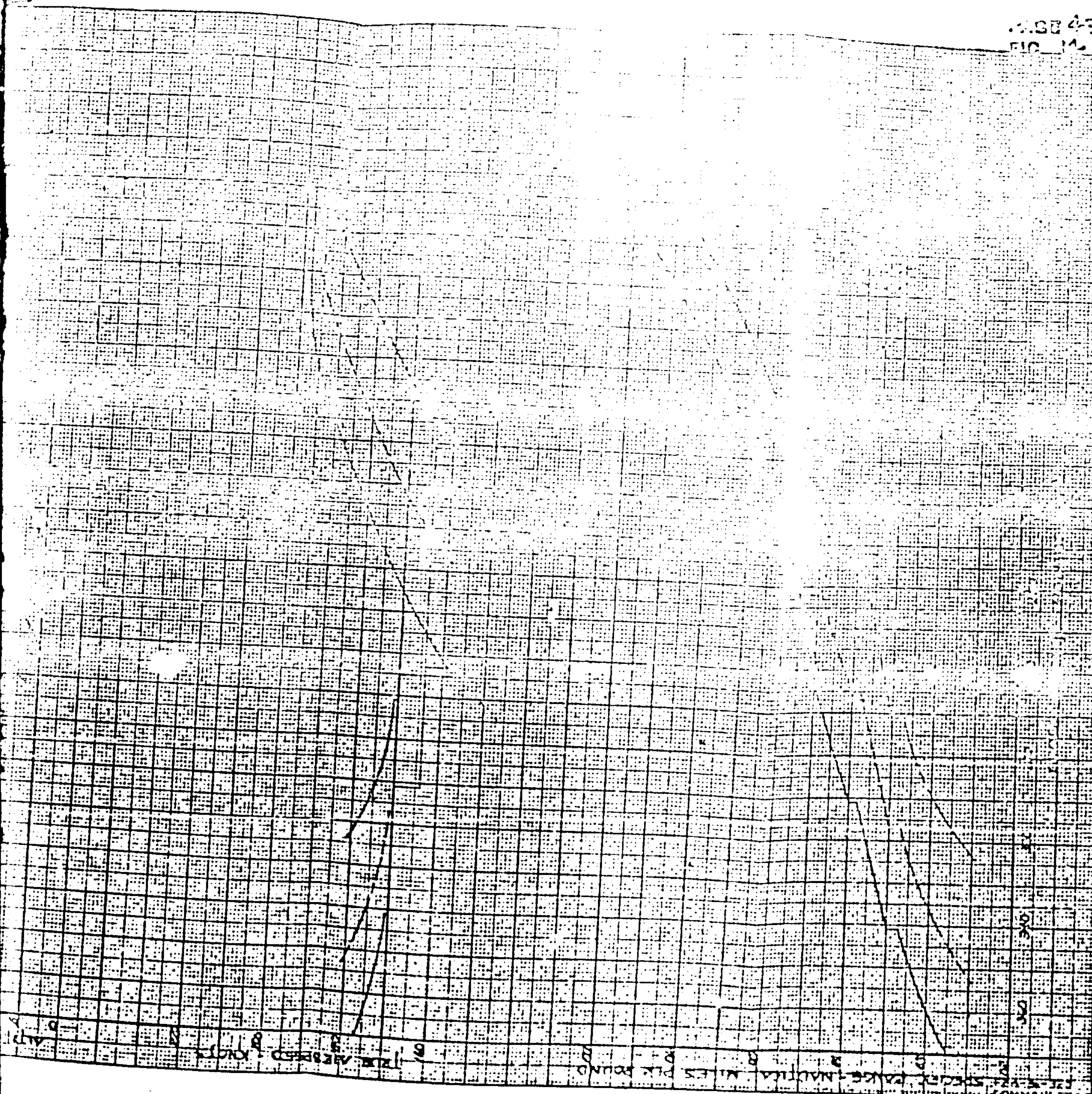
GE 4-3
FIG 14



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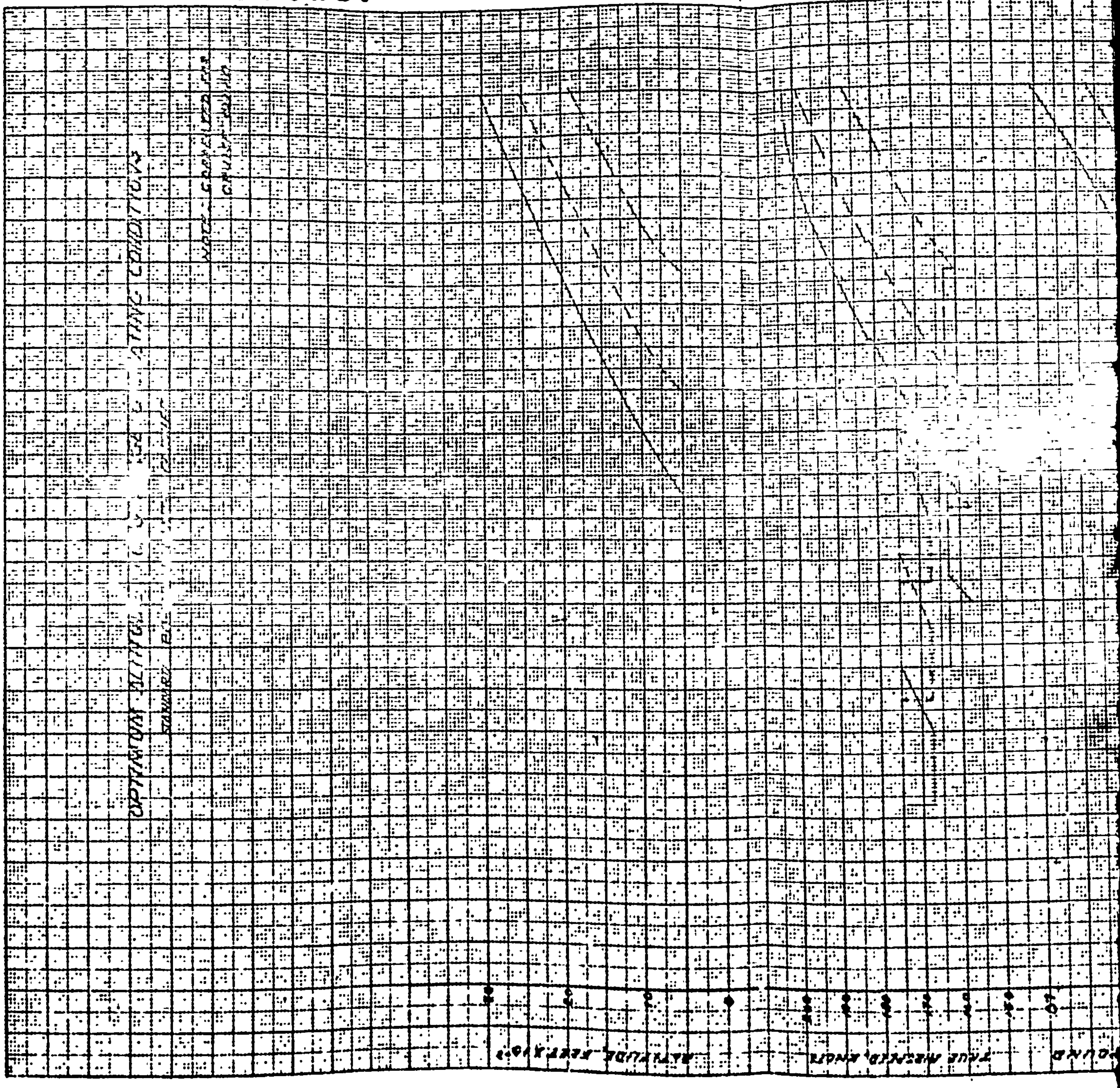

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PAGE 44
FIG. 15

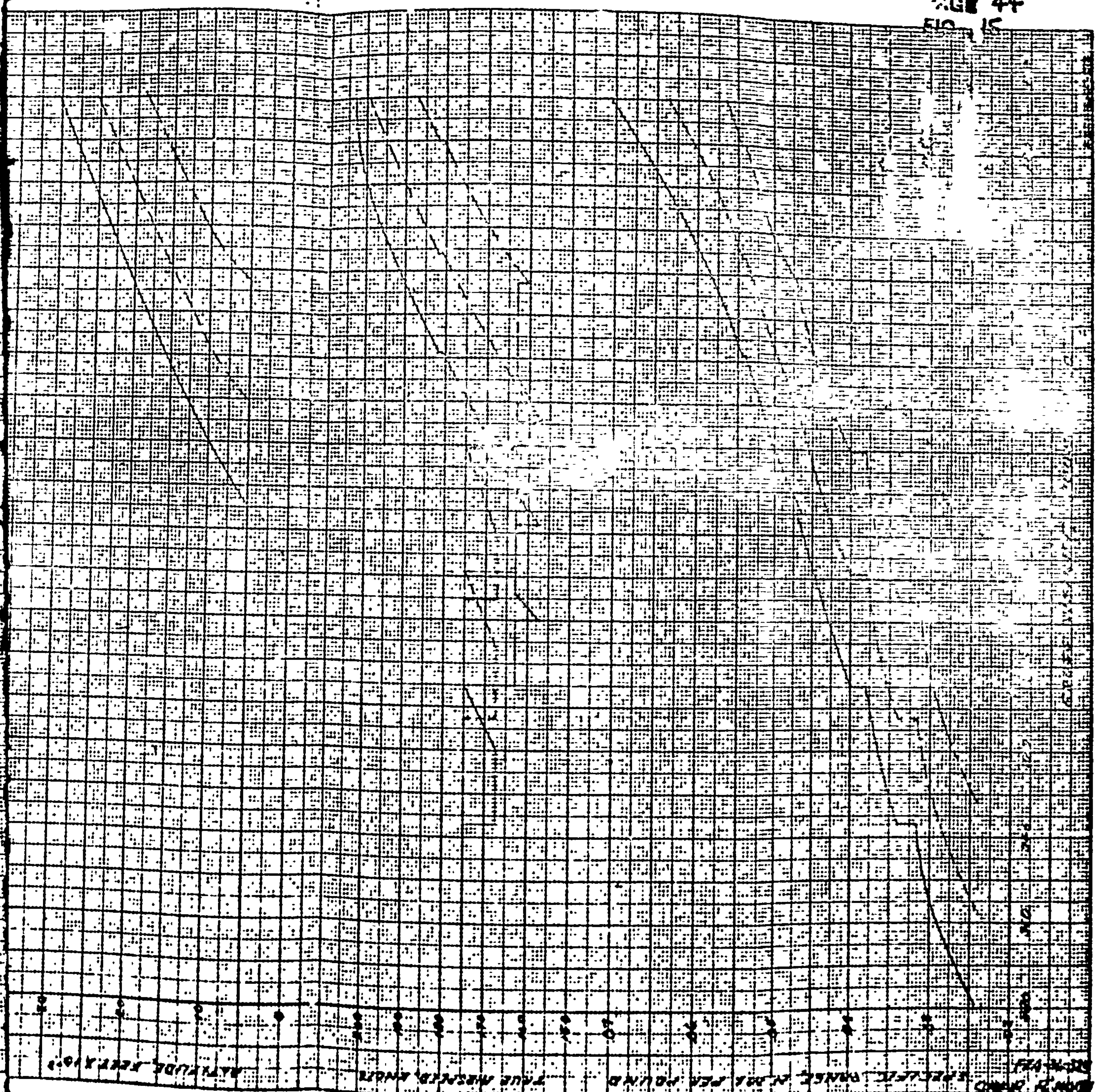

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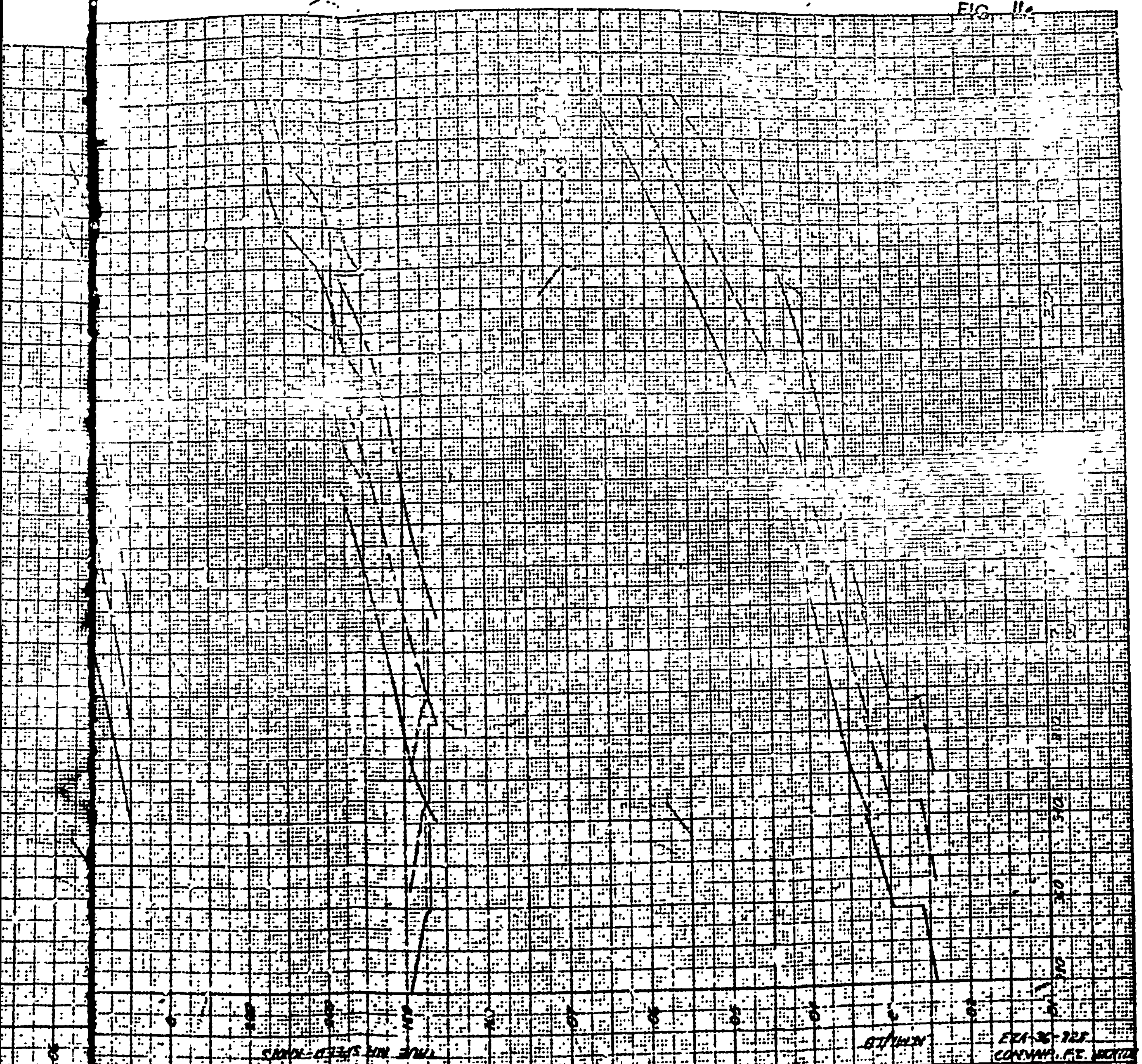
FIG. 11



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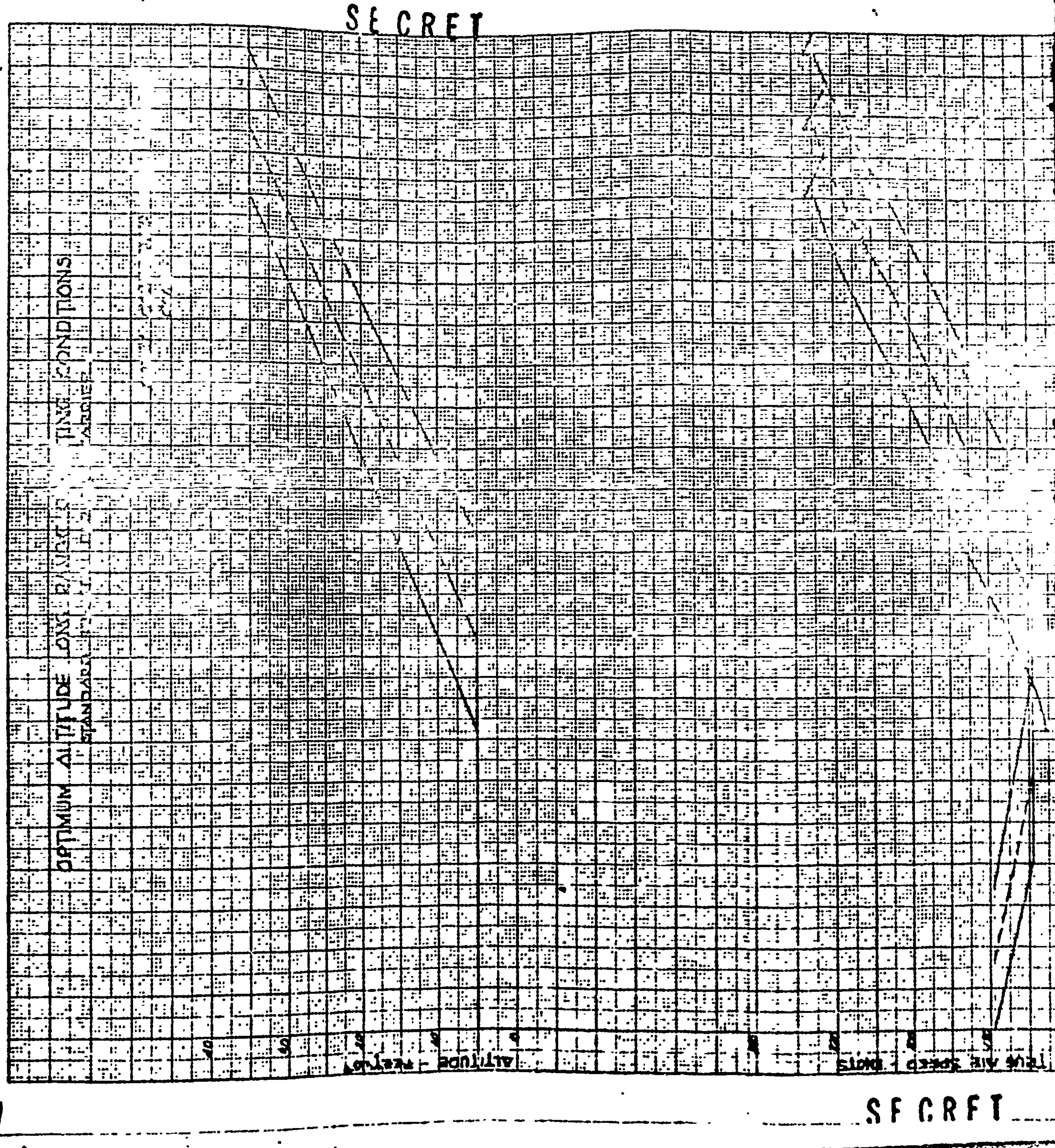

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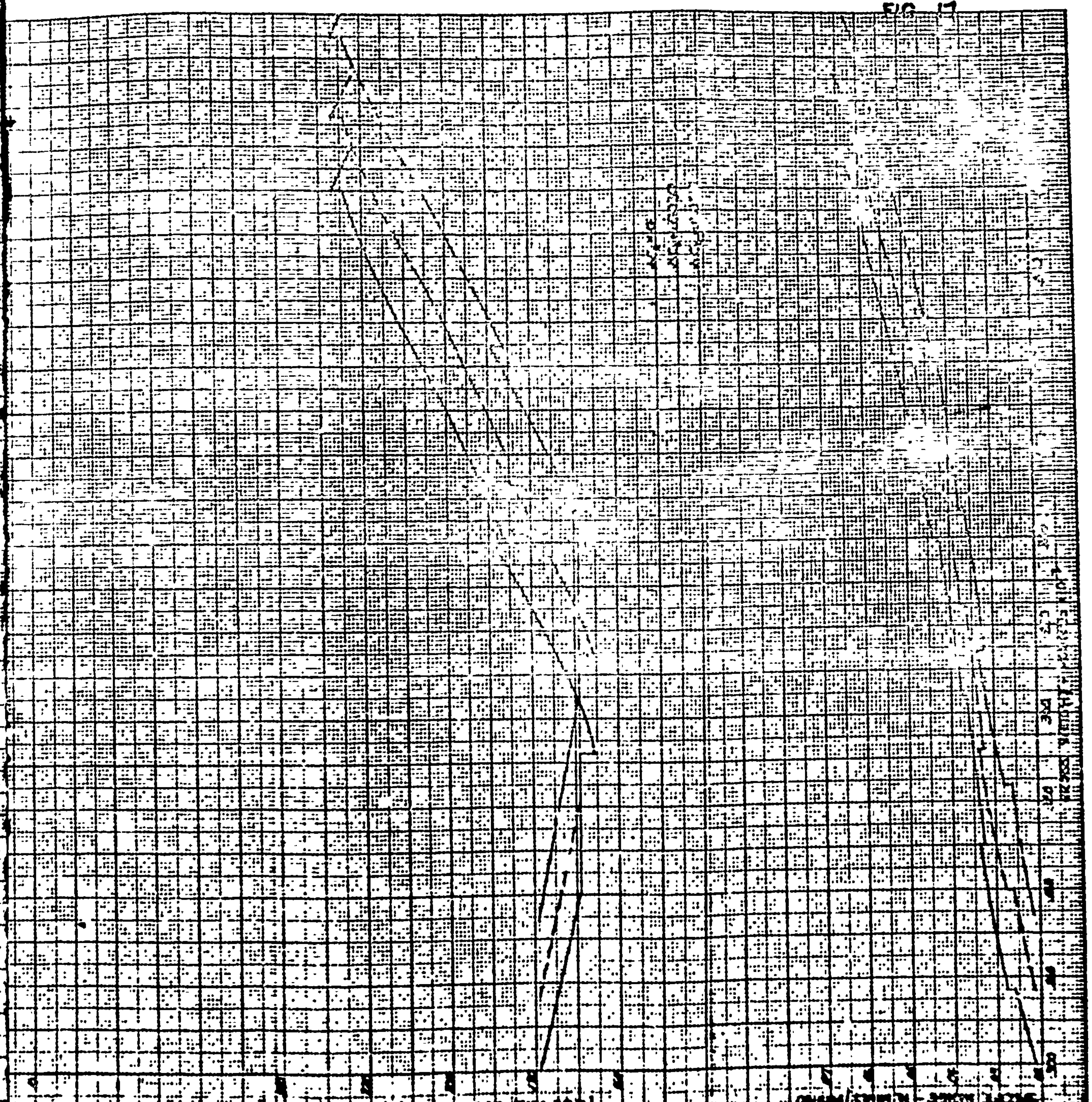
FIG. 17



FZA-80-353
CONVAIR, FT. WORTH

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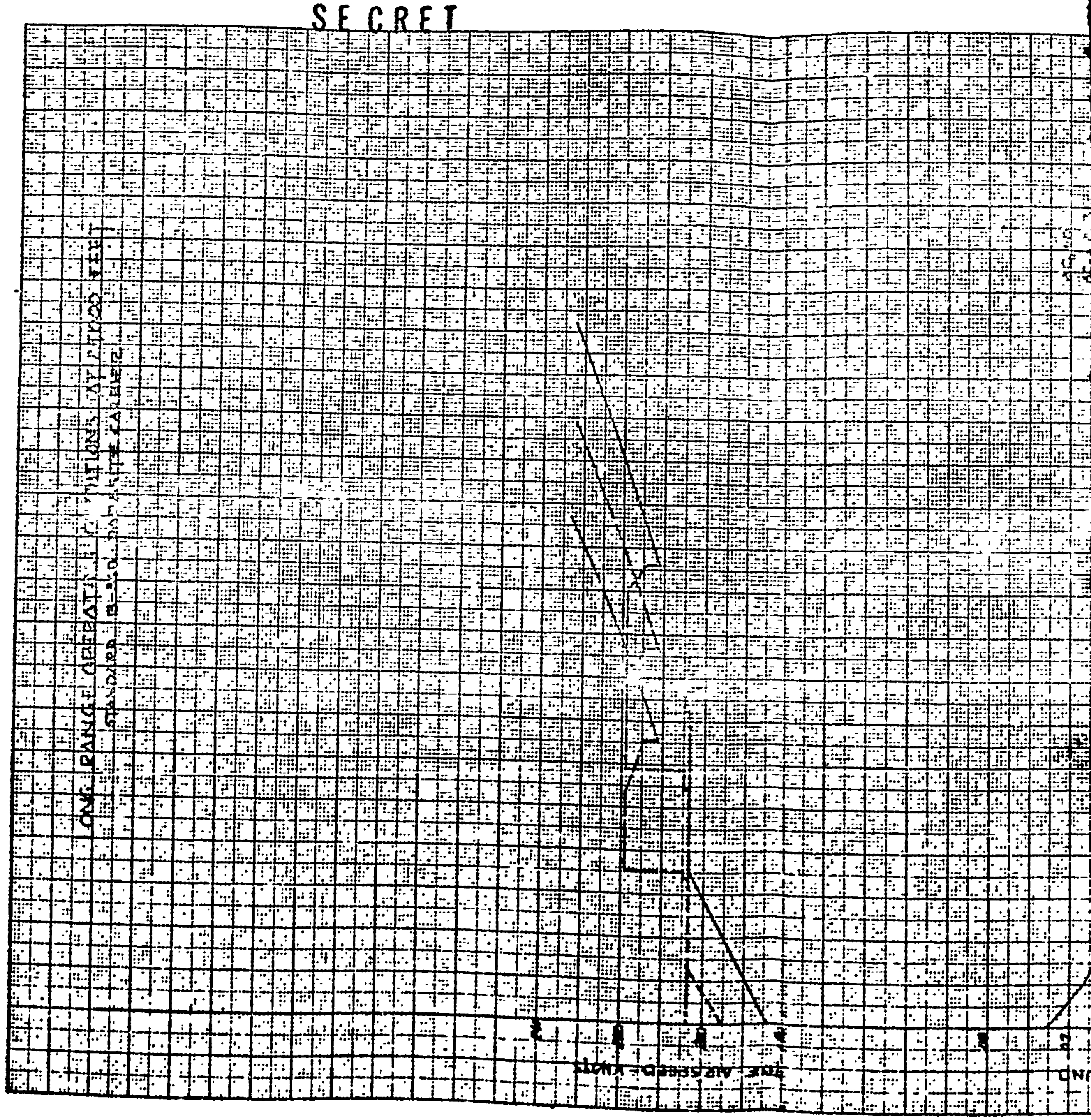

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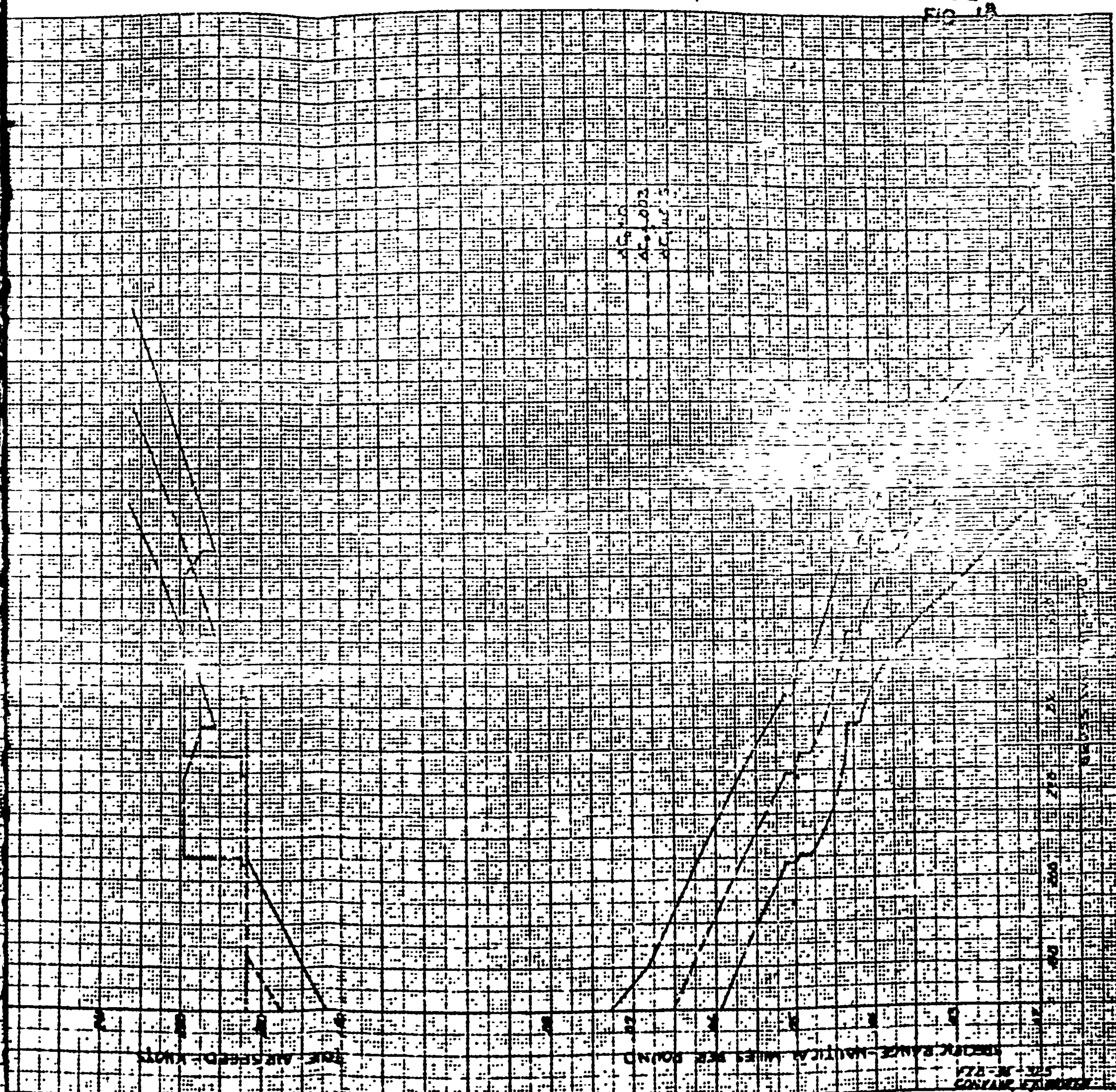

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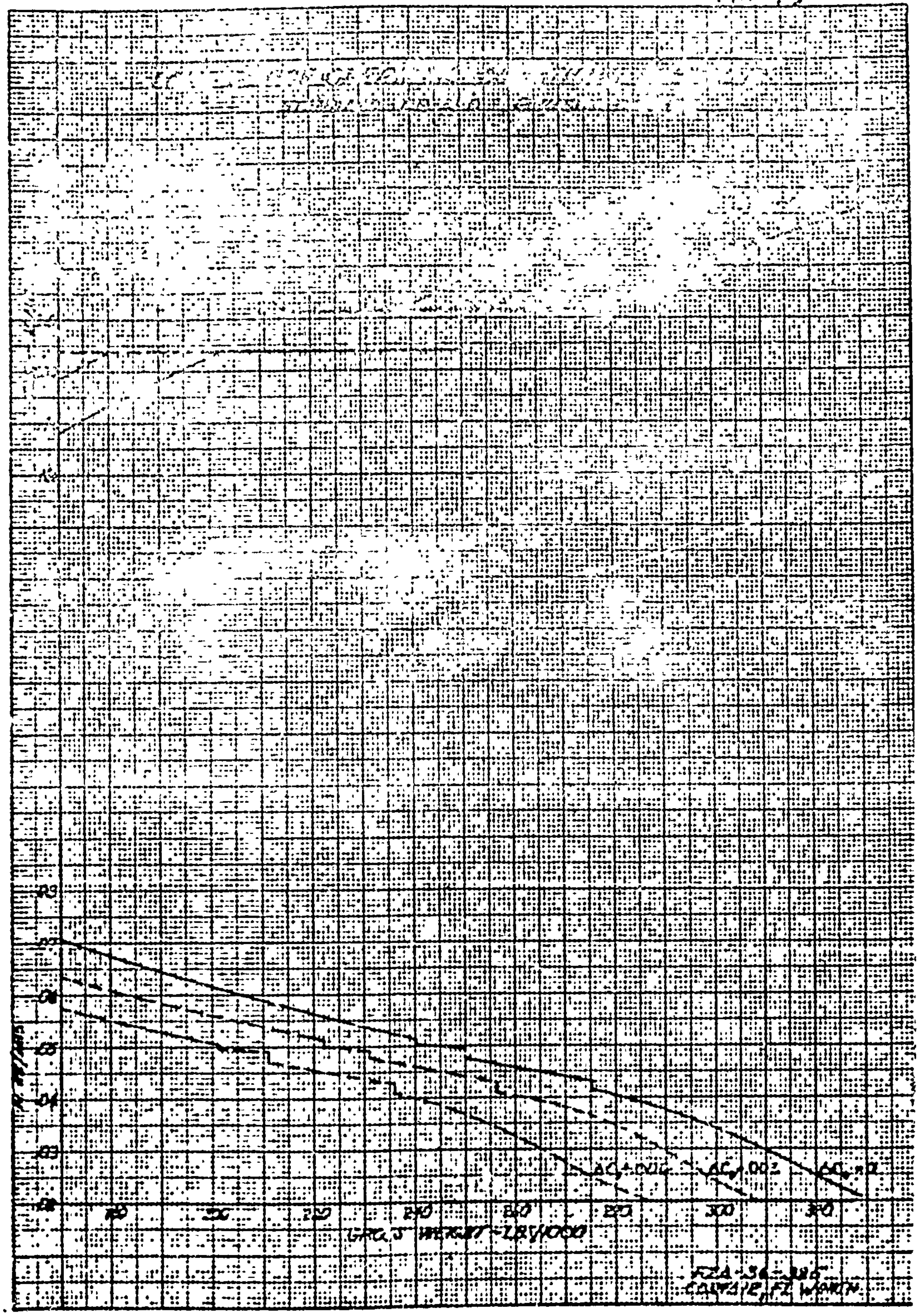
2

FIG. 19



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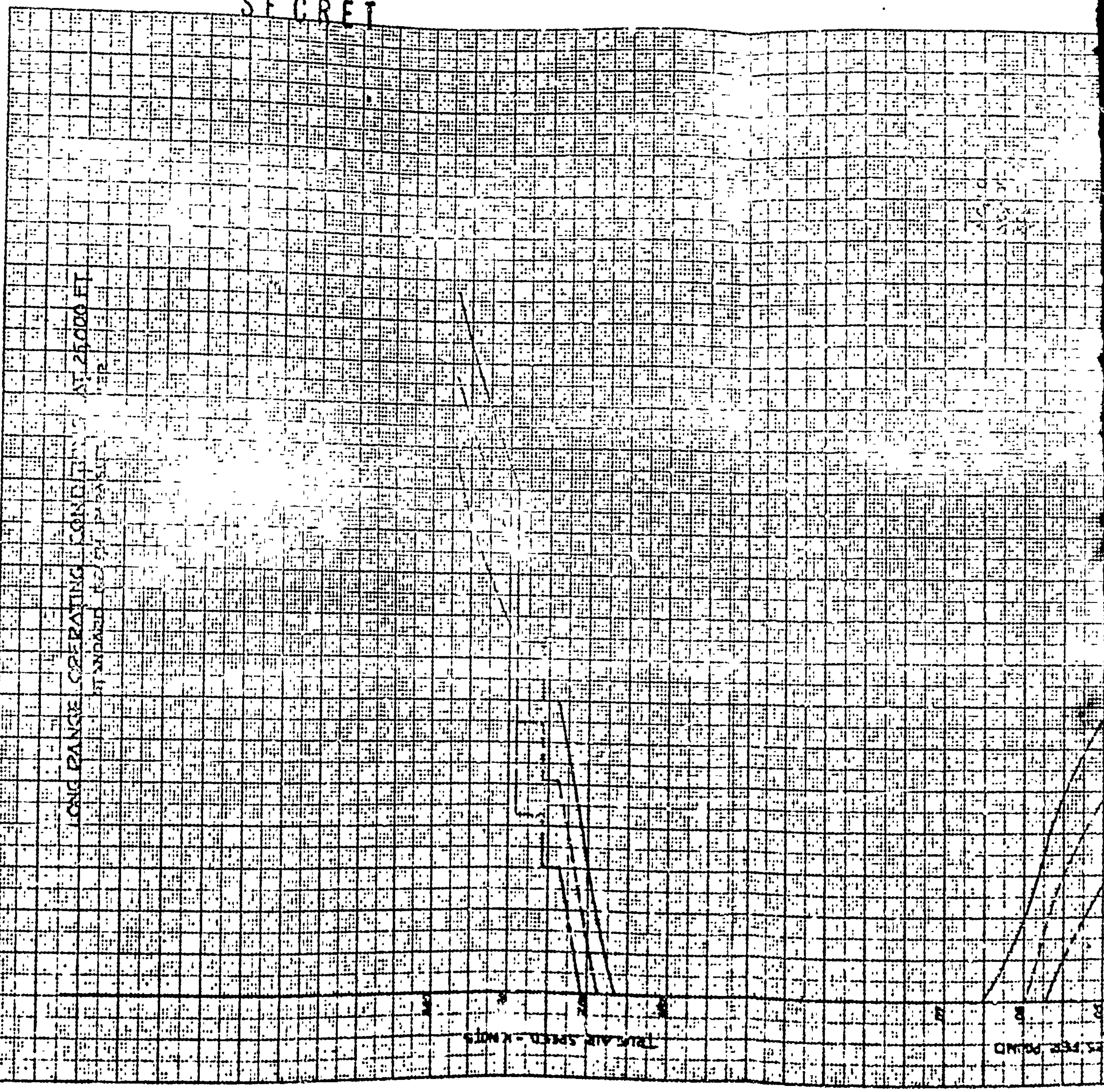

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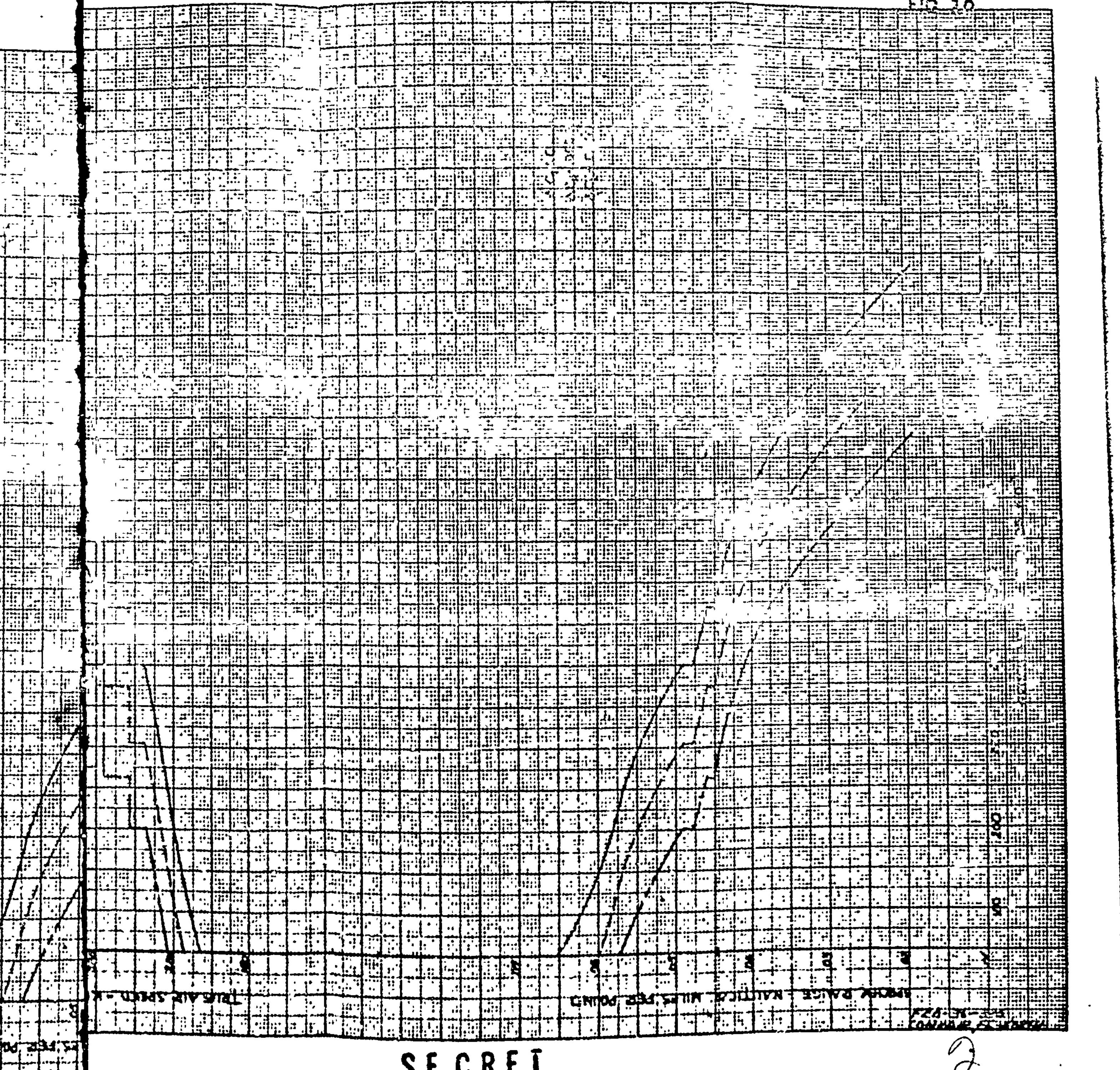
FIG 20



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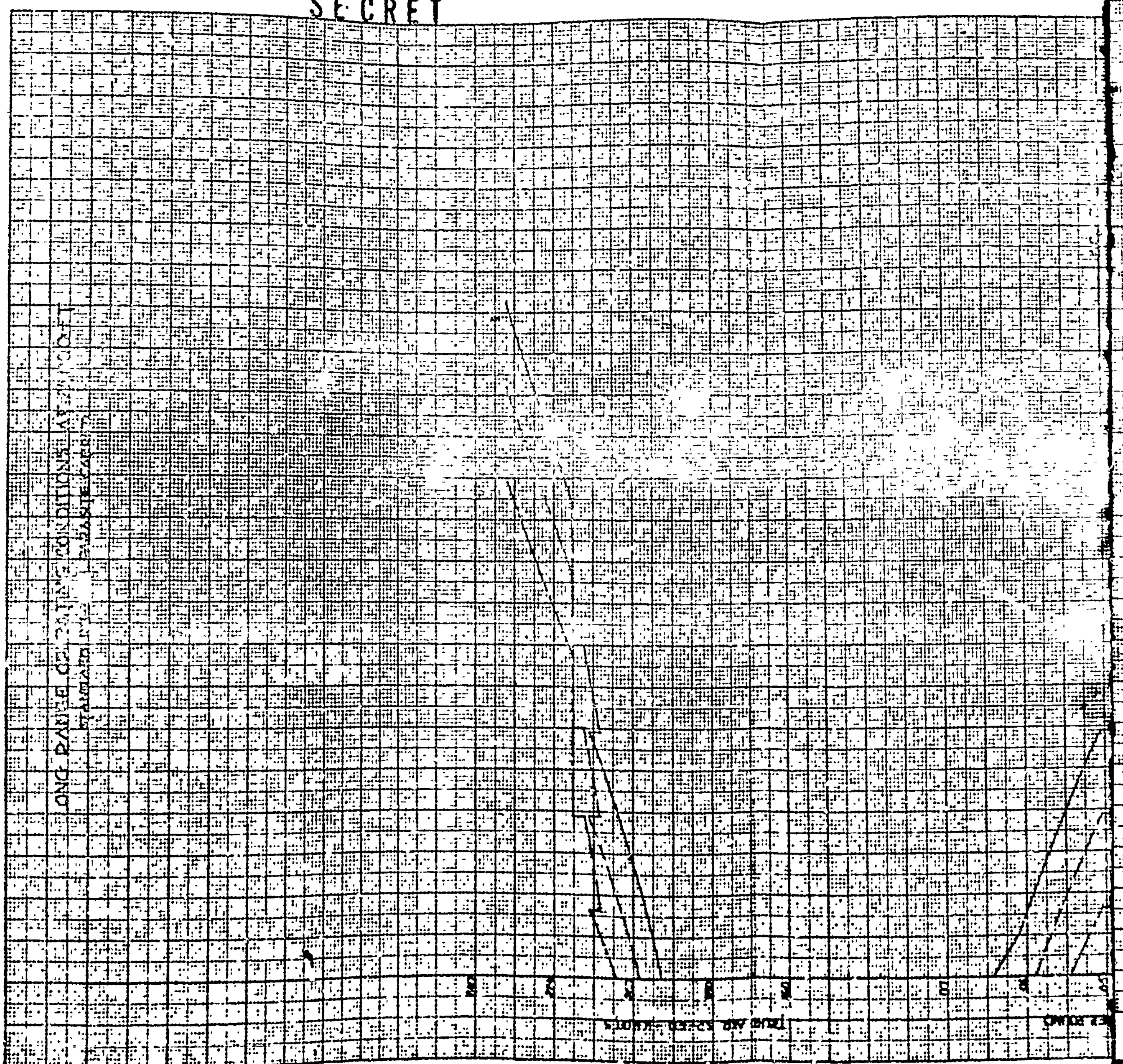
2

SECRET



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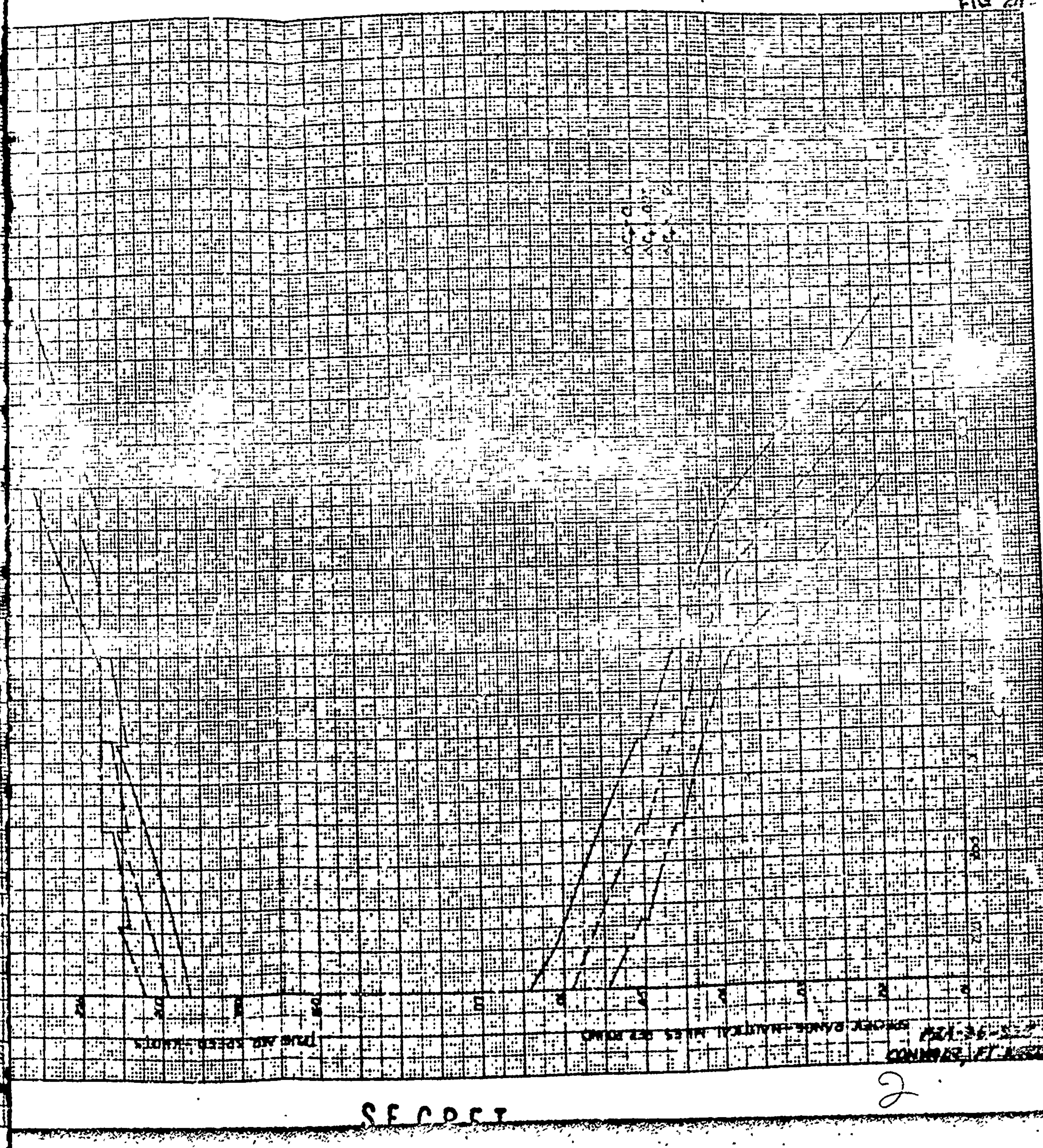
PAGE

FIG 21



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Landing Weight

Landing weight of the parasite carrier airplane is the sum of the dry take-off weight (without parasite), + parasite retrieve weight (if the carrier lands with the parasite), + reserve fuel, - ADI fluid consumed weight.

Reserve fuel (for missions where take-off is made with parasite) = .05 [Initial take-off weight - dry take-off weight - parasite launch weight] + fuel allowance for ½ hour cruise at sea level.

Reserve fuel (for missions where parasite is picked up after take-off) =

.05 [Initial take-off weight - dry take-off weight - fuel weight transferred to parasite] + fuel allowance for ½ hour cruise at sea level.

Figures 22 and 23 are to be used to obtain the fuel consumed weight for a ½ hour cruise at sea level. These charts are presented for the B-36D and B-36H airplanes, but may also be used for the RB-36D and RB-36H airplanes, respectively.

To enter the charts, calculate the landing weight of the airplane without considering the fuel consumed in a ½ hour cruise at sea level. Read the fuel consumed value for the calculated landing weight and add it to this weight to obtain the true landing weight.

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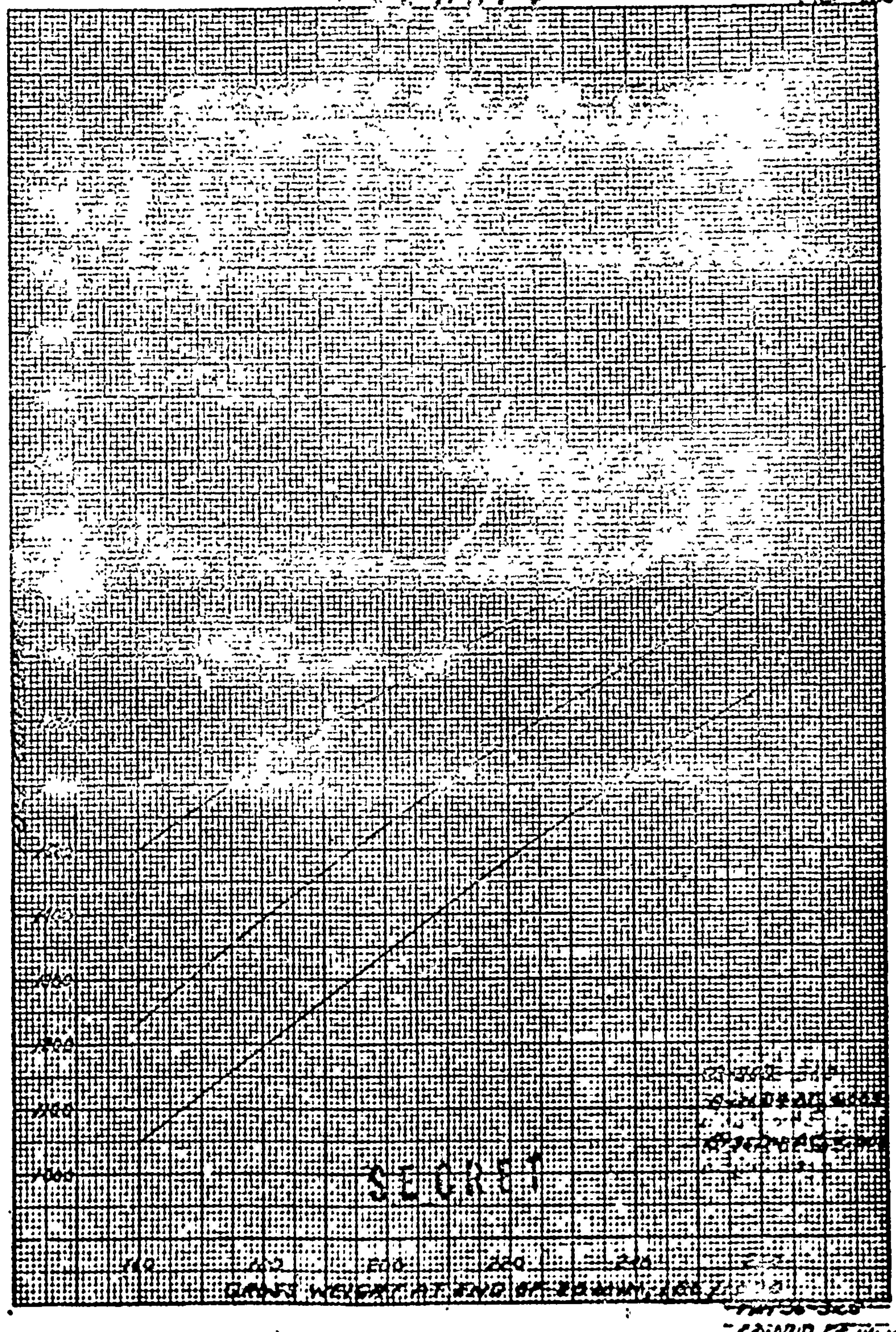
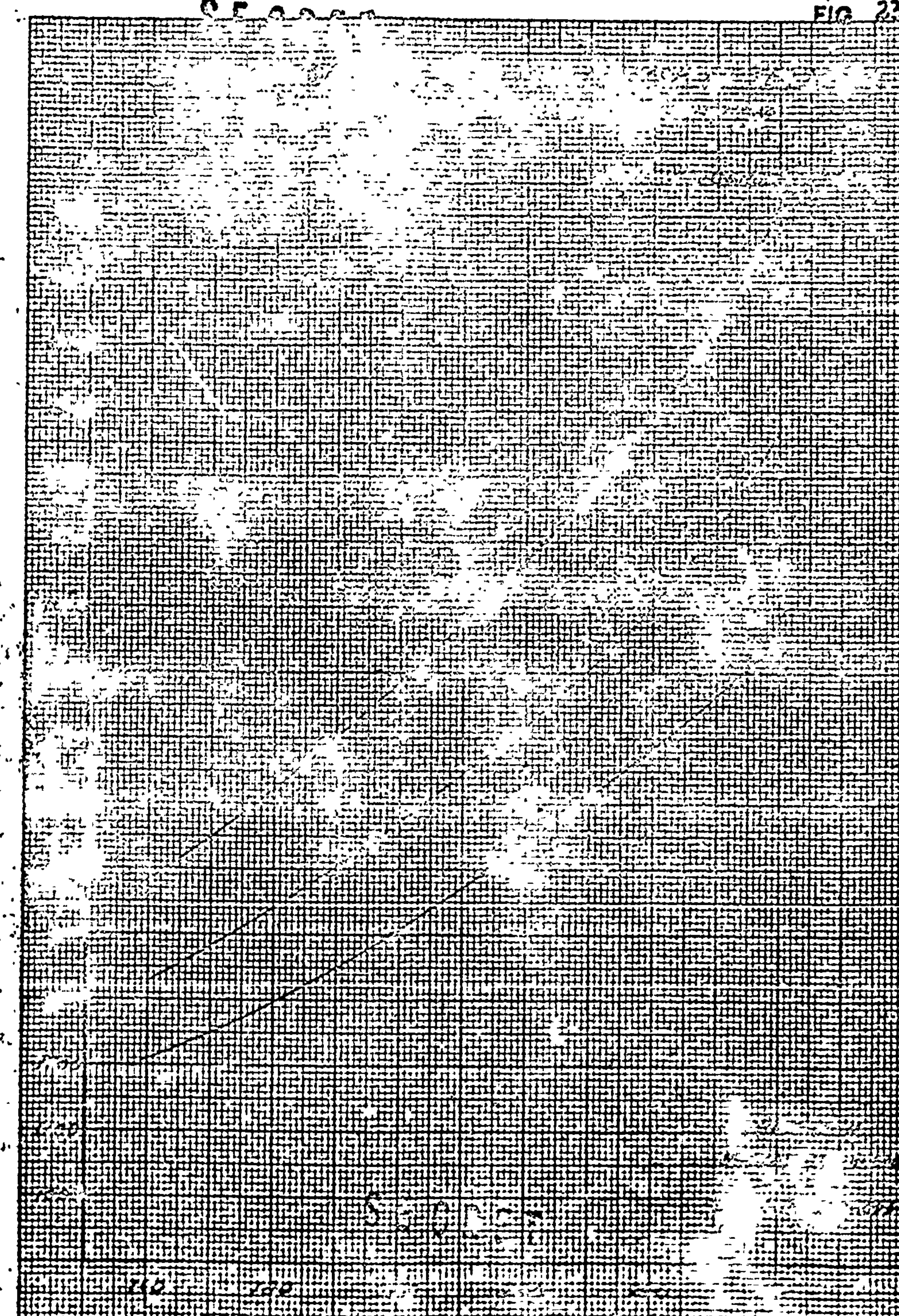


CONVAIR FT. WORTH

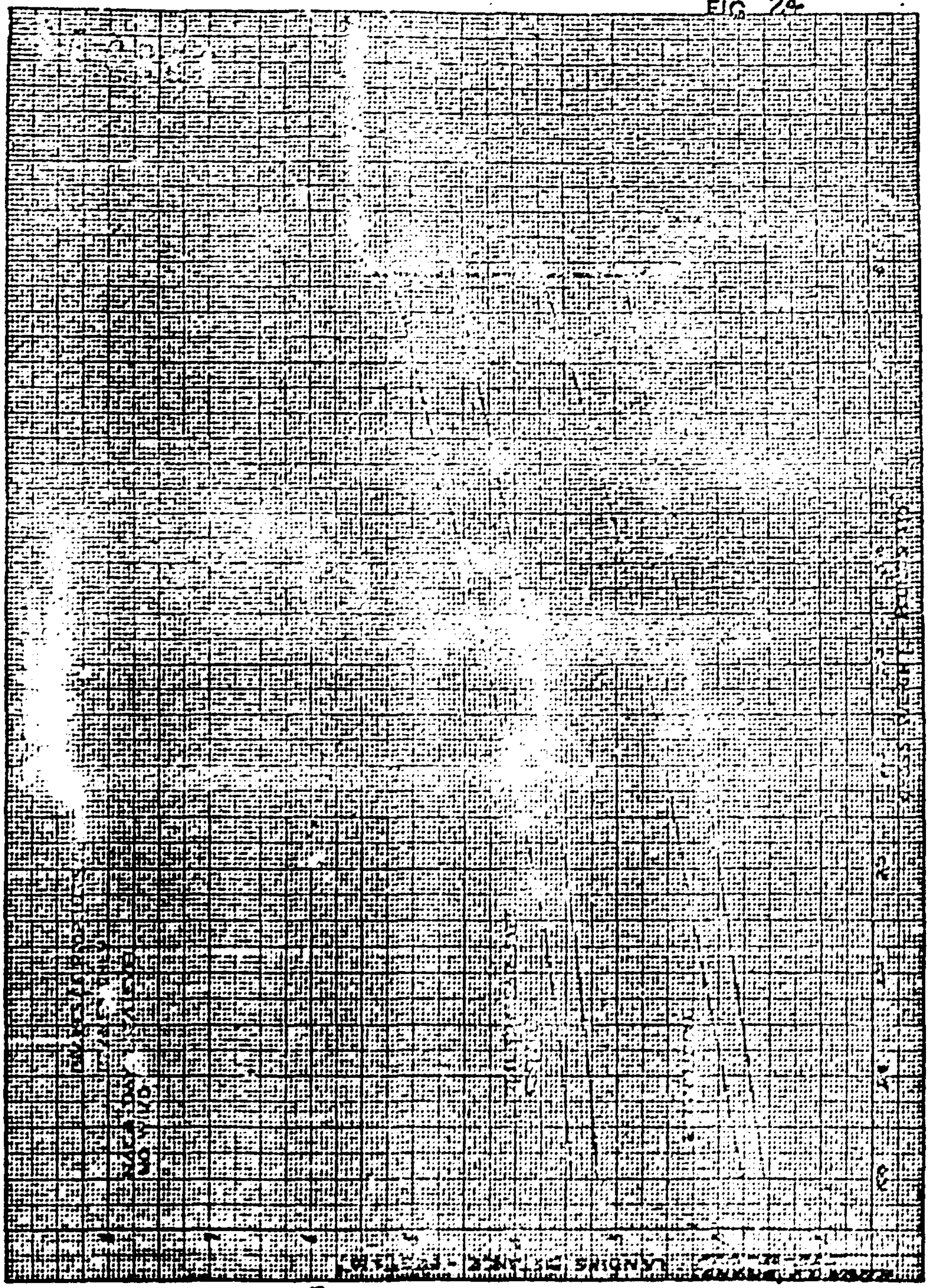
PAGE 53
FIG. 23



FZA-86-325
CONVAIR, FT WORTH

Landing Distance

The landing distance curve presented can be used for all B-36 carrier models. The data will be conservative for any drag increase due to a composite configuration.



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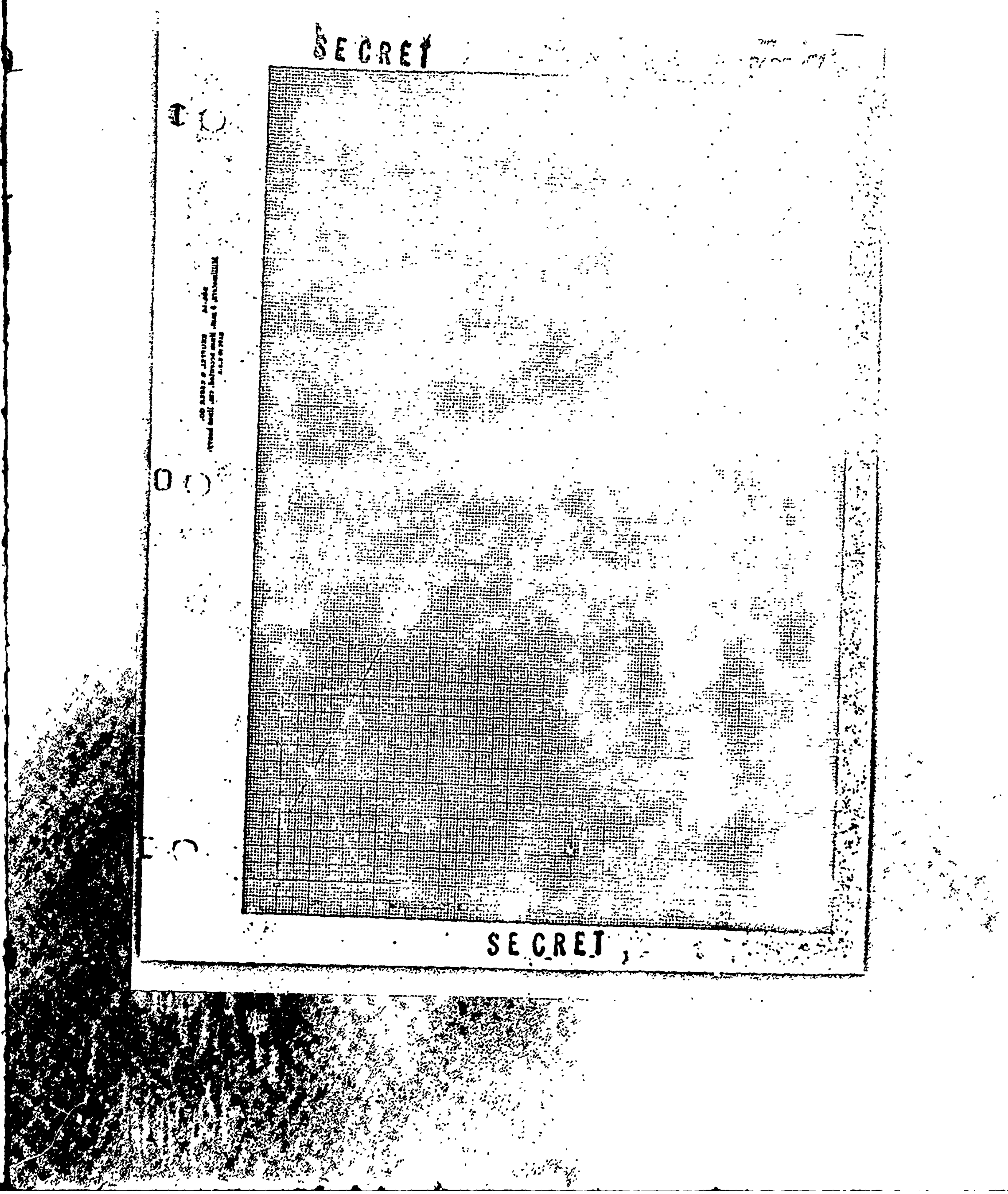
Lift and Drag

The drag polars and C_L vs. α curves are based on Phase IV Flight Tests conducted by the USAF and the Consolidated Vultee Aircraft Corporation on Standard B-36F and B-36D airplanes.

Wetted areas included in the list of airplane physical characteristics may be used to estimate drag increments due to parasite installation.

Use of plug-type bomb bay sealing doors results in a zero ΔC_D during loiter or cruise without parasite.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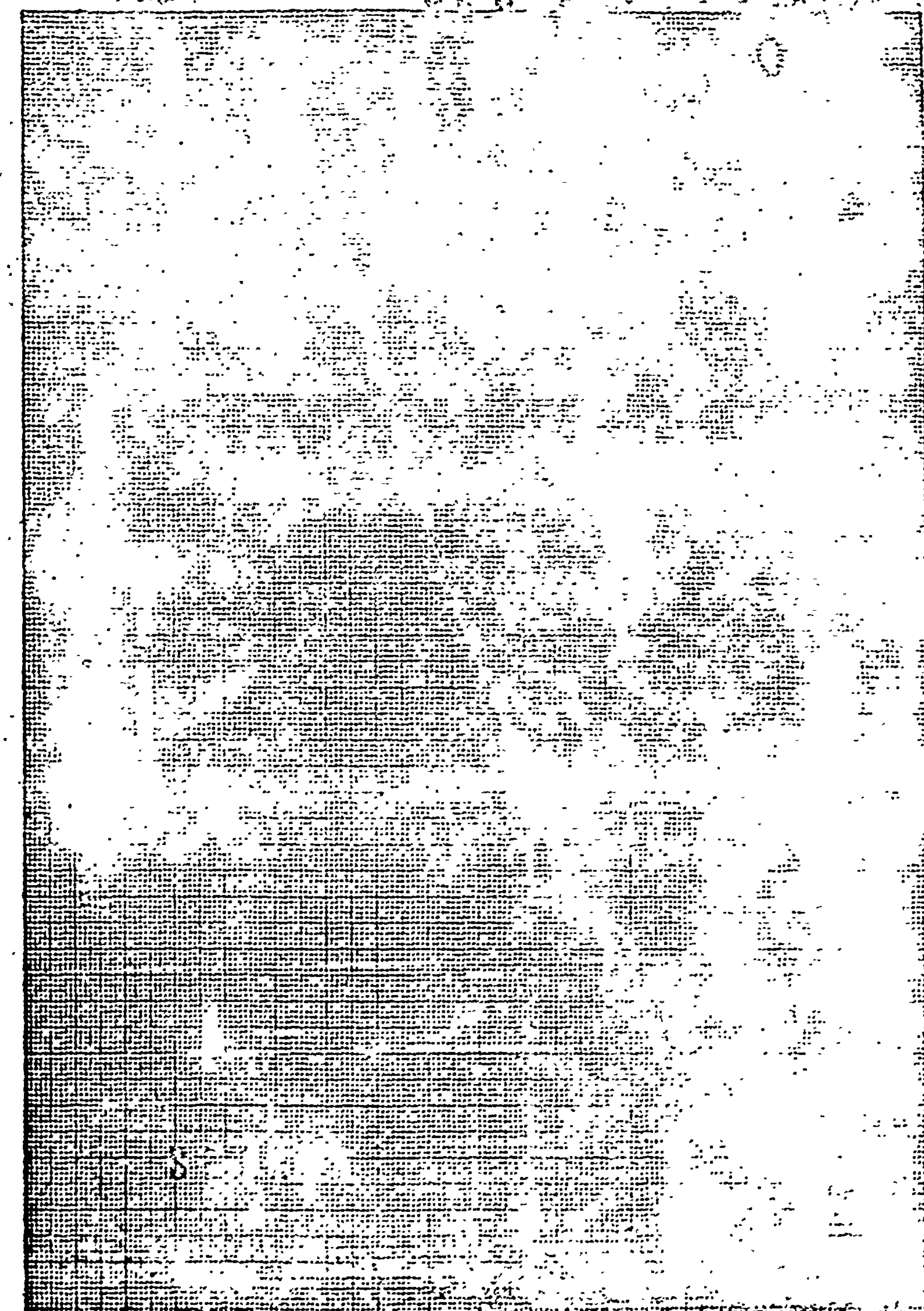
SE[illegible] PAGE [illegible]

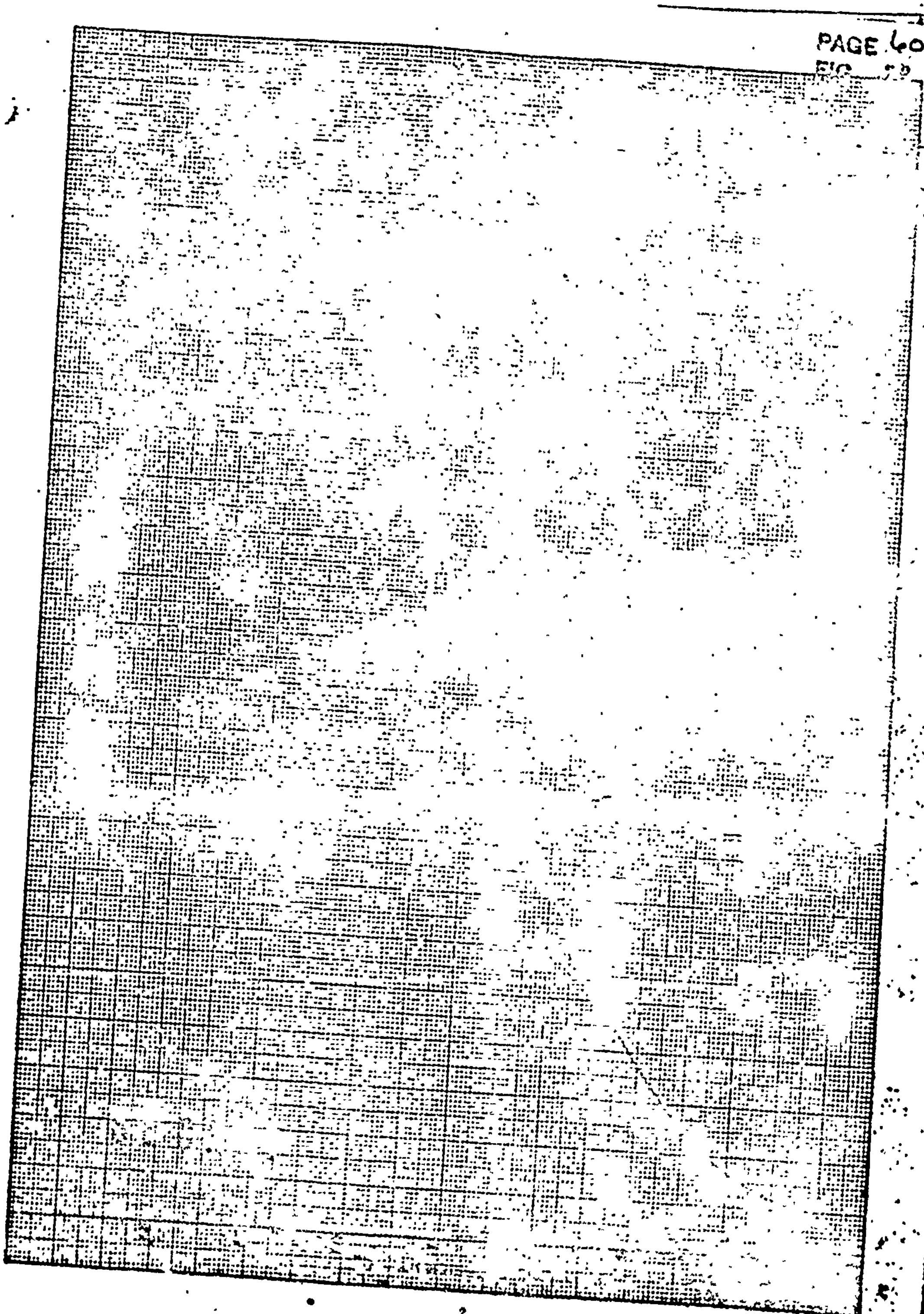
KEUFFEL & ESSER CO. 359-11
Millimeter, 5 mm. lines accented, cm. lines heavy.
MADE IN U.S.A.

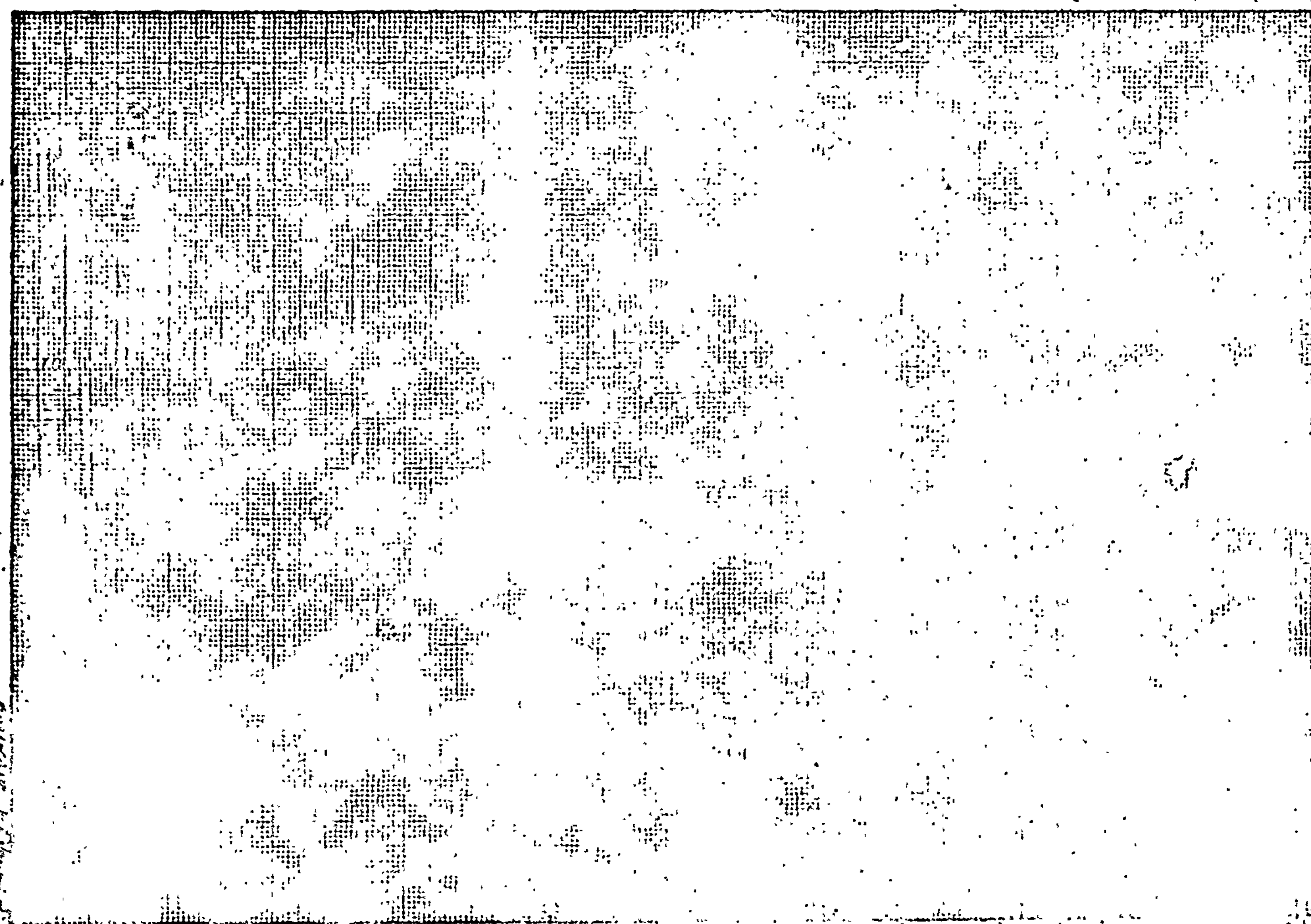
SECRET PAGE 59



PAGE 60

FIG. [illegible]





Equivalent Weight Corrections

The following drag corrections can be applied to the Standard B-36 airplane drag polars to obtain the stripped airplane drag polars.

B-36D and RB-36D

$$\Delta C_D = -.00047 - .000865\ C_L^2$$

B-36H and RB-36H

$$\Delta C_D = -.0006 - .0011\ C_L^2$$

The equations for the stripped airplane drag polars are:

B-36D	$C_D = .02133 + .0310\ C_L^2$
RB-36D	$C_D = .0221 + .0310\ C_L^2$
B-36H	$C_D = .0214 + .0330\ C_L^2$
RB-36H	$C_D = .0222 + .0330\ C_L^2$

Equivalent weight correction curves can be used to convert the basic performance data of the Standard B-36 Carriers to performance data for stripped B-36 Carriers. These equivalent weight corrections can be obtained from the following relationships:

$$C_D = C_{D_o} + K\ C_L^2; \quad D = C_D \frac{\rho}{2} SV^2$$

$$THP = \frac{DV}{K}; \quad G.W. = C_L \frac{\rho}{2} SV^2$$

For standard airplane

$$(I)\ THP_1 = (C_{D_o} + K_1 C_{L_1}^{\ 2}) \frac{\rho}{2} SV_1^3$$

SECRET

For a drag change

$$\Delta C_D = \Delta C_{D_o} + \Delta K C_L^2$$

Then

$$(Y)\ THP_2 = \left[C_{D_o} + K_1 C_{L_1}^{\ 2} + (\Delta C_{D_o} + \Delta K C_{L_2}^2)\right] \frac{\rho}{2} S V_2^{\ 3}$$

Let $K_1 + \Delta K = K_2$

For stripped airplane

$$(Y)\ THP_2 = \left[C_{D_o} + K_2 C_{L_2}^2 + \Delta C_{D_o}\right] \frac{\rho}{2} S V_2^{\ 3}$$

Let $THP_1 = THP_2$ and $V_1 = V_2$

$$\text{Then } \left[C_{D_o} + K_1 C_{L_1}^2\right] \frac{\rho}{2} S V_1^{\ 3} = \left[C_{D_o} + K_2 C_{L_2}^{\ 2} + \Delta C_{D_o}\right] \frac{\rho}{2} S V_2^{\ 3}$$

$$C_{D_o} + K_1 C_{L_1}^2 = C_{D_o} + K_2 C_{L_2} + \Delta C_{D_o}$$

$$K_1 C_{L_1}^{\ 2} - K_2 C_{L_2}^2 = \Delta C_{D_o}$$

But

$$GW = C_L \frac{\rho}{2} S V^2 \quad \text{or} \quad GW^2 = C_L^{\ 2}\left(\frac{\rho}{2} S V^2\right)^2$$

$$K_1 GW_1^{\ 2} - K_2 GW_2^{\ 2} = \pm\, \Delta C_{D_o}\left(\frac{\rho}{2} S V^2\right)^2$$

$$GW_1 = \sqrt{\frac{K_2}{K_1} GW_2^2 + \frac{\Delta C_{D_o}}{K_1}\left(\frac{\rho}{2} S V^2\right)^2}$$

SAMPLE MISSIONS

Basic Radius Mission

Standard RB-36D carrier airplane

370,000 pounds take-off gross weight (composite)

40,000 pounds parasite launch weight

20,000 pounds parasite retrieve weight

ΔC_D = .0030 added drag to RB-36D in composite configuration

Parasite mission time = 1 hour

All fuel consumptions are calculated 5% conservative

A standard RB-36D carrier is to take-off from its home base carrying a fighter weighing 40,000 pounds. The composite take-off weight is to be 370,000 pounds. The RB-36D composite configuration cruises at optimum altitude to a point, such that maximum radius may be obtained, where a climb is made to 25,000 feet. The parasite is launched immediately after the climb to 25,000 feet is completed and the carrier loiters at long range cruise at the launch altitude until the fighter mission is completed. After retrieving the parasite fighter the composite configuration descends to the optimum altitude flight path and cruises back to the home base.

Following the mission graphically (see Figure 30) the composite take-off gross weight is 370,000 pounds. The 3550 pounds allowance for warm-up, taxi, and take-off reduces the gross weight to 366,450 (A). From figure 12 the normal rated power climb to optimum altitude is complated at 363,000 pounds gross weight, a time to climb of .10 hour and a range of 15 nautical miles (B). A range and time integration of Figure 15 established B-F for the composite configuration.

Long range climbs are made from optimum altitude to 25,000 feet at points C, D, and E along B-F. Line G-I is then the locus of points for the end of long range climb from optimum altitude to 25,000 feet for the composite configuration.

Since the parasite is launched immediately upon arrival at 25,000 feet, K-M can be established as the locus of carrier weights after launch by reducing the weights at G, H, and I by 40,000 pounds with no range gain and obtaining the points K, L and M. At the gross weights at points K, L, and M, the fuel consumed in one hour loiter plus 15 minutes for fighter retrieve is subtracted and the new gross weights plotted at points O, P, and Q, respectively. O-Q is then the locus of points for the end of loiter. A locus of points after retrieve, S-U, is then found by adding 20,000 pounds for the fighter retriever weight to the points O, P and Q to obtain the points S, T, and U.

Before the total mission radius can be established it is necessary to determine the landing gross weight and integrate from this weight along the flight path to intersect S-U.

Landing gross weight is calculated as follows:

Dry take-off	189,721	pounds
ADI fluid used	- [illegible].300	"
Reserve fuel	8,664	"
Parasite retrieve weight	20,000	"
Landing weight	218,085	"

Reserve fuel is calculated as 5% of the total fuel consumed which is the difference between the take-off gross weight (370,000 pounds) and the sum of the dry take-off gross weight and the parasite launch weight, (189,721 + 40,000 = 229,721 pounds). Then .05 (370,000 - 229,721) = 7,014 pounds.

From the landing gross weight of 218,085 pounds (x), a range and time integration for the composite configuration (ΔC_D = .0030) of figure 15 establishes X - W.

The intersection of X-W with S-U establishes the total mission radius at point V as 2100 nautical miles, and since no range is gained from the time of parasite launch to parasite retrieve, the points J, K, and R are determined respectively on the end of climb line G-I, the launch line K-M, and the loiter line O-Q. Using the gross weight at the end of climb to 25,000 feet (J), the beginning of climb from the optimum flight path may be determined from Figure 12. Subsequently the corresponding points on the time integration line may be determined.

Post Strike Mission

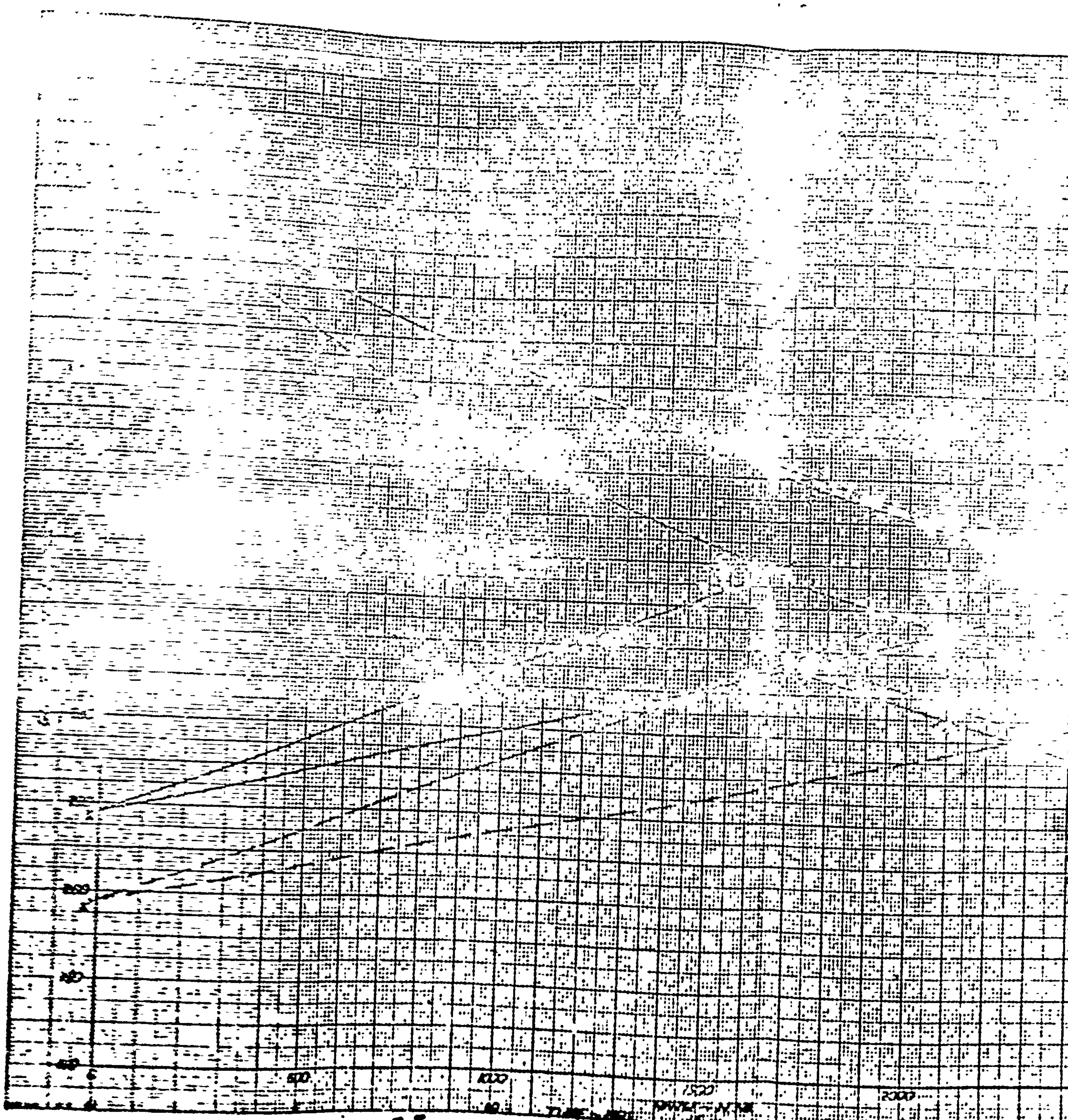
The calculations for the post strike mission (shown in dashed lines on the graph) will be very nearly the same as the above; the only difference being in the landing line and the exclusion of loiter time.

For the post strike mission the composite configuration has the same take-off weight of 370,000 pounds and flies along the same optimum altitude flight path to a point where a climb is again begun

to 25,000 feet. The parasite is launched immediately upon arrival at 25,000 feet and the RB-36D returns to its home base alone with no time lost in loiter. The difference in landing weight of these two missions is the 20,000 pounds retrieve weight of the fighter. For the post strike mission the landing weight is 198,085 pounds.

Following the mission graphically, the climb to 5,000 feet and cruise at optimum altitude is again made along A-B-F in Figure 30. Line G-I is again the end of climb line and K-M is again the launch line. Starting at the landing weight of 198,085 pounds an integration is again made along the flight path to intersect K-M. This integration must be for the RB-36D alone.

The intersection of X'-W' with K-M establishes the total mission radius at point N' as 2336 nautical miles. Other points on the mission may be determined in the same manner as previously.



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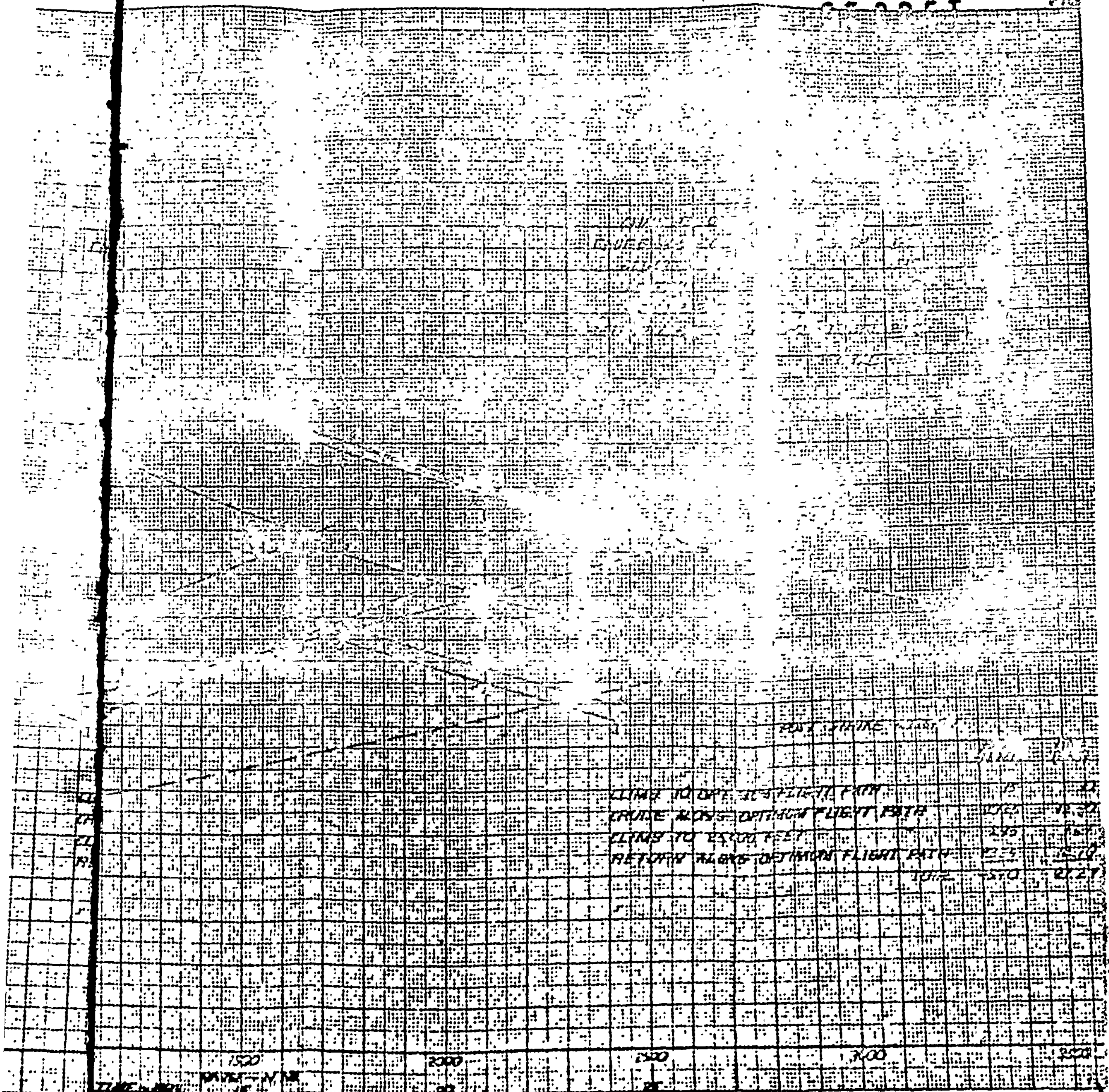
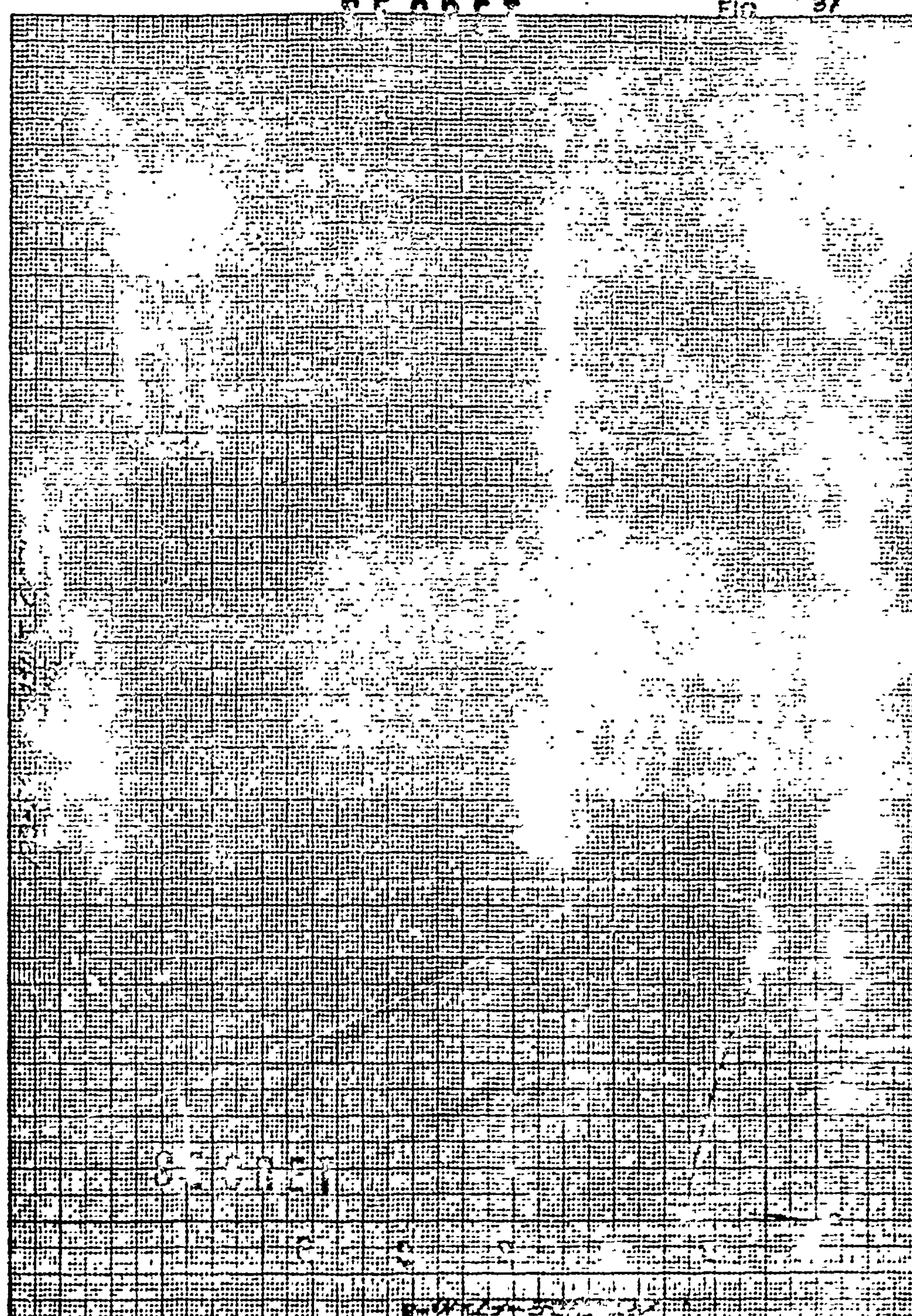


CLIMB TO OPT. ALTITUDE
CRUISE ALONG OPTIMUM FLIGHT PATH
RETURN ALONG OPTIMUM FLIGHT PATH
1500
2000
2500

2

PAGE 69
FIG. 31

SECRET



FZA-36-925
CONVAIR, FT. WORTH

Advance Base Pick-Up Mission

Standard RB-36D airplane,
370,000 pounds take-off gross weight,
35,000 pounds parasite pick-up weight,
40,000 pounds parasite launch weight,
20,000 pounds parasite retrieve weight,
ΔC_D = .0030 (added drag to a standard RB-36D for a composite configuration),
1 hour parasite fighter mission time,
All fuel consumption calculated 5% conservative

A standard carrier RB-36D is to take off from its home base at a gross weight of 370,000 pounds. After the initial climb to optimum altitude the carrier cruises to the advance base to pick up the parasite fighter. After parasite pick-up the composite configuration flies at optimum altitude and starts a long range climb so as to reach 25,000 feet at the parasite launch site. Before launching the parasite fighter it is refueled to its original take-off gross weight. The parasite is launched immediately after the climb to 25,000 feet is completed, and the carrier loiters at long range cruise at the launch altitude until the fighter mission is completed. After retrieving the parasite fighter the composite configuration descends to the optimum altitude flight path and cruises back to the fighter pick-up base. The fighter is released above the advance base at its retrieve weight, and the carrier returns to its home base.

Following the mission graphically (figure 32) the carrier total take-off gross weight is 370,000 pounds (A). The 3800 pound allowance for warm-up, taxi, and take-off reduces the gross weight to 366,200 pounds (B). From figure 12 the normal rated power climb to optimum altitude (5,000 feet) is completed at 363,000 pounds gross weight, a time to climb of .10 hr. and a range of 18 nautical miles (C). A range and time integration from figure 15 establishes the range line C-D for the carrier. Line E-F is a loiter of 15 minutes at optimum altitude long range operating conditions above the advance base. Since the composite gross weight cannot exceed 370,000 pounds, the 35,000 pound addition of the parasite has to be made at G on line E-F to establish H at 370,000 pounds. This establishes the pick-up base distance of 810 nautical miles away from the carrier initial take-off point. The carrier mission time for this distance is 5 hours. Long range cruise is continued from H to I in a composite configuration. The distance H-I is obtained from an integration of the nautical miles-per-pound versus gross weight curve, labeled ΔC_D = .0030, figure 15 ; Line K-L is a locus of long range climbs to 25,000 feet (calculated from figure 19) from the optimum altitude flight path (H-I) for the composite configuration.

Since the parasite is launched immediately upon arrival at 25,000 feet, the locus of carrie gross weights versus range may be established as line N-O (a 40,000 pound loss in gross weight with no range gain). A 1 hour loiter plus 15 minutes for fighter retrieve time at long range operating conditions at 25,000 feet establishes the locus of carrier gross weights versus range represented by line Q-R. A fighter retrieve weight of 20,000 pounds added to line Q-R establishes the composite configuration weights after retrieve as line T-U.

Before the total mission radius can be established it is necessary to determine the landing gross weight and work backwards along the flight path to intersect the line T-U.

The landing gross weight is comprised of the following weights:

Dry take-off	=	189,721 pounds
ADI fluid used	=	-300 pounds
Reserve fuel	=	10,299 pounds
Total Carrier Landing Weight	=	199,720 pounds

From the landing gross weight of 199,720 pounds (Z) a range and time integration for the carrier airplane ($\Delta C_D = 0$) of figure 15 establishes the lines Z-Y. Since the retrieved parasite has to be released above its home base the point X can be determined as a 20,000 pound increment above line Z-Y at the same range as determined by G-H. The lines X-W are a time and range integration of the composite configuration (from figure 15).

The intersection of X-W with T-U establishes the total mission radius at point V as 2571 nautical miles; and since no range is gained from the time of parasite launch to parasite retrieve the points M, P, and S are determined on the end of climb line K-L, the launch line N-O, and the loiter line Q-R, respectively.

Using the gross weight at end of climb to 25,000 feet (M), the beginning of climb from the optimum altitude flight path may be determined at (J) from figure 12. Subsequently, the corresponding points on the time integration line may be determined.

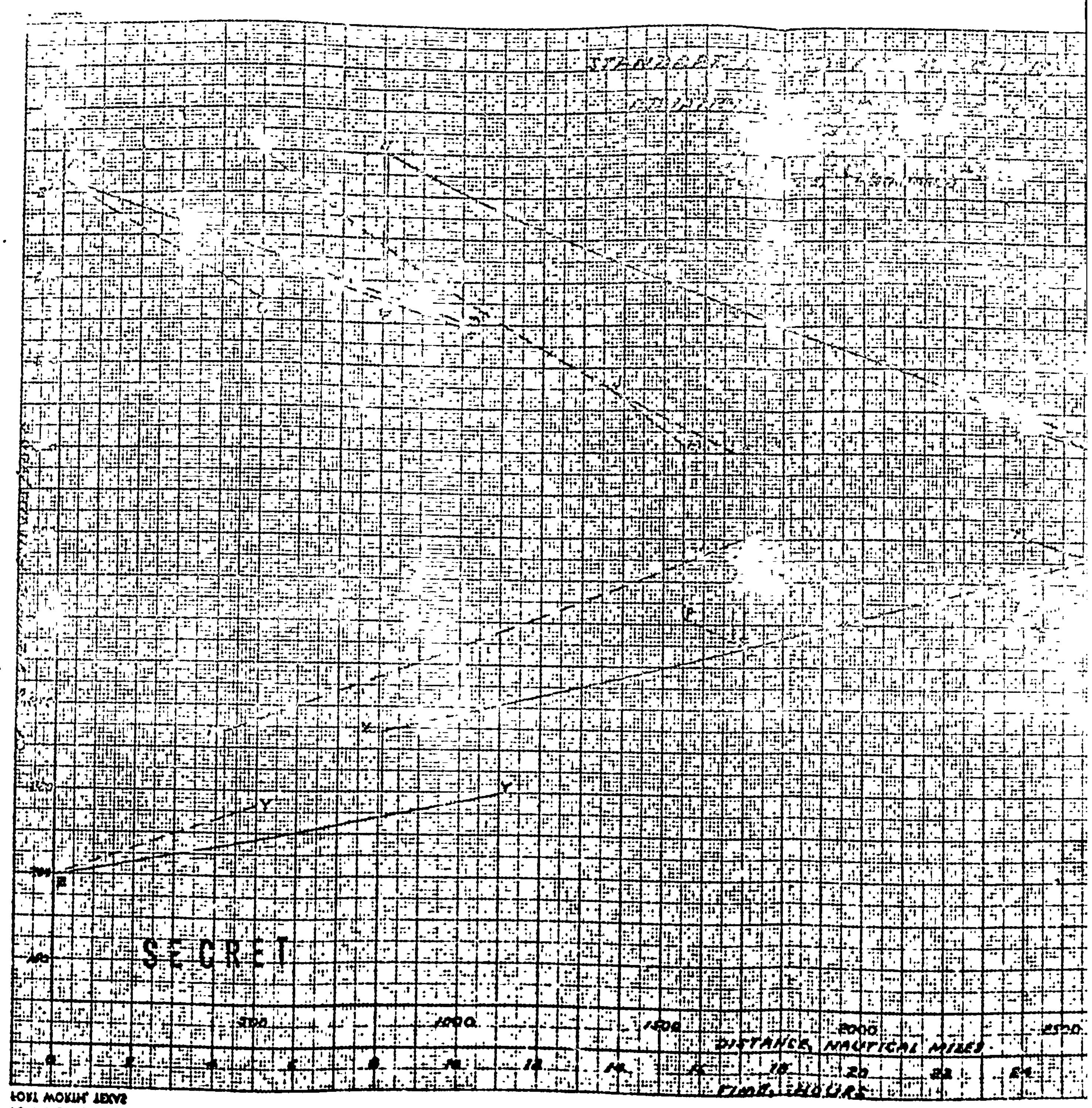
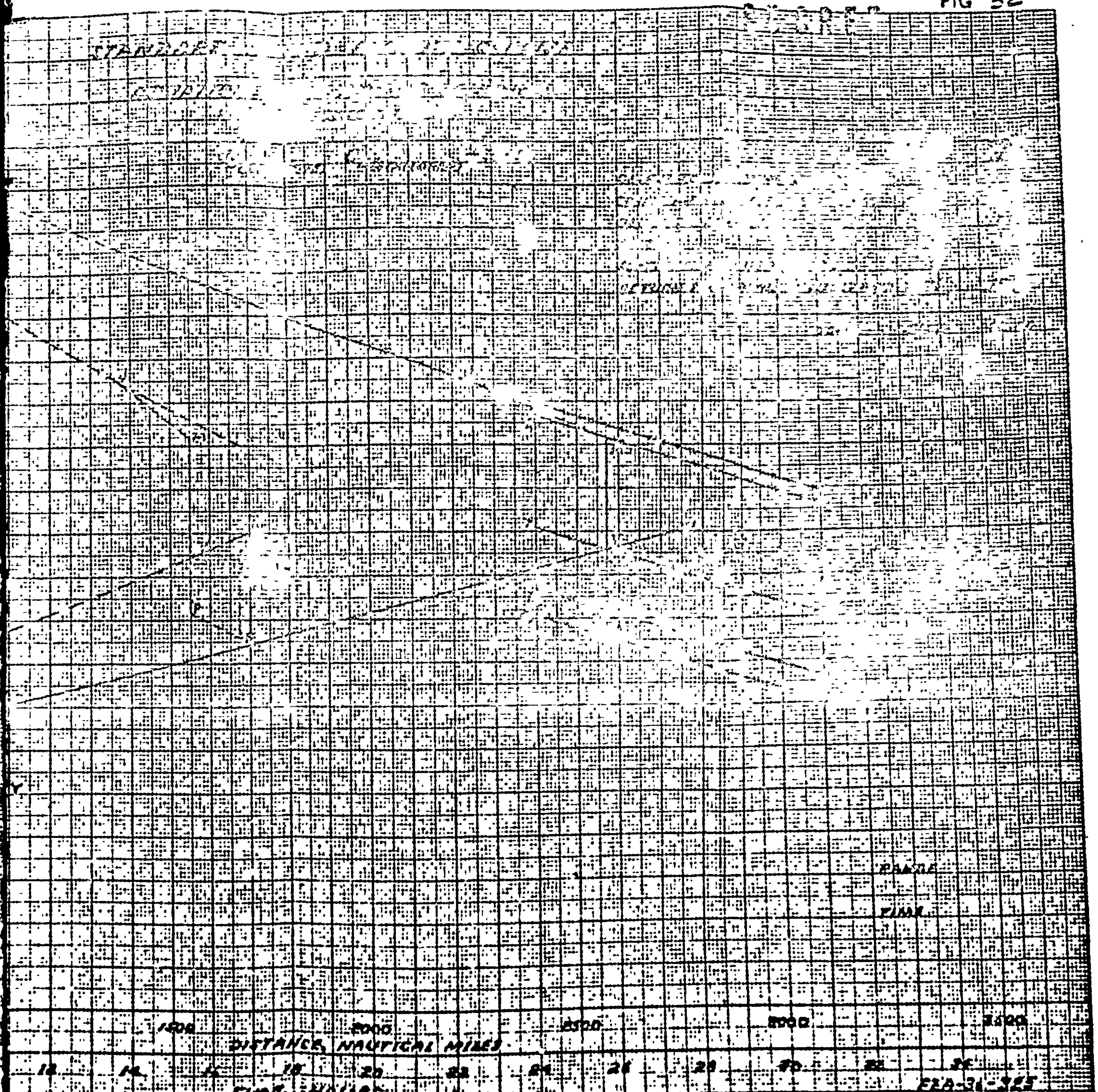

DISTANCE, NAUTICAL MILES
500
1000
1500
2000
2500
TIME, HOURS
SECRET

FIG 32



CONVAIR
FT WORTH TEXAS
2

ANALYSIS	CONVAIR	PAGE	74
PREPARED BY	FORT WORTH DIVISION	REPORT NO.	FZA-36-325
CHECKED BY	FORT WORTH, TEXAS	MODEL	
REVISED BY		DATE	4 August 1954

SECTION III

WEIGHT & BALANCE DATA

This section contains weights and C. G. Stations (relative to Carrier) for the four models of the B-36 which are considered in this report for carrier performance. All models have identical fuel and oil capacities and tanks, and this information is listed separately.

The BASIC WEIGHT of the airplane as used in this report is defined as the weight of the carrier ready for flight, but not including fuel, injection water, oil, crew, or parasite airplane. Trapped fuel and oil is carried in addition to fuel tank capacities listed.

The weights of the trapeze mechanism and provisions, existing parasite, and bomb bay tank for parasite refueling are also included in this Section.

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B-36D Carrier

	Standard	Sta. of C. G.	Stripped	Sta. of C. G.
Weight Empty	161,371 lbs		151,771	
Parasite Provisions	4107	68.9 ft.	4107	68.9 ft.
Landing Gear Modifications for 370,000 Lb. Take-off	231		231	
Material Substitution	275		275	
Weight Empty Items not part of Basic	-12		-12	
Weight Empty (Carrier	165,972	78.03 ft.	156,372	78.57 ft.
Trapped Fuel and Oil	1492		1492	
Propeller Hub Oil	102		102	
ADI fluid	405		405	
Guns	1803	81.82 ft.	214	162.1 ft.
Ammunition	5796	84.79 ft.	756	157.3 ft.
Dry Ice	135			
Food and Water	358		155	
Miscellaneous	208		208	
Bomb Bay Tank*	405	89.66 ft.	405	89.66 ft.
BASIC WEIGHT (Carrier	176,676	78.29 ft.	160,109	79.10 ft.
Oil	4650		4650	

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*Bomb bay tank carried only on ferry and separate take-off mission

ANALYSIS	
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CONVAIR
FORT WORTH DIVISION
FORT WORTH, TEXAS

PAGE 76
REPORT NO. FZA-36-325
MODEL
DATE 4 August 1954

CONFIDENTIAL

B-36D Airplane (Cont'd)

	Standard	Sta. of C. G.	Stripped	Sta. of C. G.
Crew	2700	71.28	2025	71.28
Fuel Load	185,974		203,216	
MAXIMUM TAKE-OFF WEIGHT	**370,000	72.71to79.03ft.	**370,000	72.71to 79.03ft.
MAXIMUM LANDING WEIGHT	***357,500	72.71to79.03ft.	***357,500	72.71to 79.03ft.

** Limited by Strength (Wing and Landing Gear), Load factor = 2.0

*** Limited by Strength (Landing Gear)

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RB-36D Carrier

	Standard	Sta. of C. G.	Stripped	Sta. of C. G.
Weight Empty	164,798		155,106	
Parasite Provisions	4107	68.9 ft.	4107	68.9 ft.
Landing Gear Modification for 370,000 lb. Take-off	231		231	
Material Substitution	253		253	
Weight Empty Items not part of Basic Weight	-48		-48	
WEIGHT EMPTY (Carrier)	169,341	77.72 ft.	159,649	78.26 ft.
Trapped Fuel and Oil	1492		1492	
Propeller Hub Oil	102		102	
ADI Fluid	405		405	
Guns	1803	81.82 ft.	214	162.1 ft.
Ammunition	5796	84.79 ft.	756	157.3 ft.
Dry Ice	135			
Food and Water	358		155	
Miscellaneous	126		126	
Bomb Bay Tank*	405	89.66 ft.	405	89.66 ft.

*Bomb Bay Tank carried only on ferry and separate take-off missions.

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RB-36D Carrier (Cont'd)

	Standard	Sta. of C. G.	Stripped	Sta. of C. G.
BASIC WEIGHT (Carrier)	179,963	78.02 ft.	163,304	78.82 ft.
Cameras	1389	40.24 ft.	1389	
Crew (12-9)	2700	57.32 ft.	2025	57.32 ft.
Oil	4650		4650	
Fuel Load	181,298		198,632	
MAXIMUM TAKE-OFF WEIGHT	**370,000	72.71to79.03ft.	**370,000	72.71to79.03ft.
MAXIMUM LANDING WEIGHT	***357,500	72.71to79.03ft.	***357,500	72.71to79.03ft.

** Limited by Strength (Wing and Landing Gear), Load factor = 2.0

*** Limited by Strength (Landing Gear)

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ANALYSIS	CONVAIR FORT WORTH DIVISION FORT WORTH, TEXAS	PAGE 79
PREPARED BY		REPORT NO. FZS-36-325
CHECKED BY		MODEL
REVISED BY		DATE 4 August 1954

CONFIDENTIAL

B-36 H Carrier

	Standard	Sta. of C. G.	Stripped	Sta. of C. G.
Weight Empty	168,487		160,094	
Parasite Provisions	4107	68.9ft.	4107	68.9 ft.
Landing Gear Modifications for 370,000 lb. Take-off	231		231	
Material Substitution	345		345	
Weight Empty Items not part of Basic Weight	-14		-14	
WEIGHT EMPTY (Carrier)	173,156	78.35 ft.	164,763	78.[illegible] ft.
Trapped Fuel and Oil	1492		1492	
Propeller Hub Oil	102		102	
ADIFluid	405		405	
Guns	1803	81.82ft.	214	162.1 ft.
Ammunition	5796	84.79 ft.	756	157.3 ft.
Dry Ice	135			
Crew Comfort	565		135	
Food & Water	358		155	
Miscellaneous	162		162	
Chaff Dispenser	278	137.5 ft.	263	137.5
Bomb Bay Tank*	405		405	

* Bomb Bay Tank carried only on ferry and separate take-off missions

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ANALYSIS	CONVAIR FORT WORTH DIVISION FORT WORTH, TEXAS	PAGE [illegible]
PREPARED BY		REPORT NO. [illegible]-325
CHECKED BY		MODEL
REVISED BY		DATE 4 August 1954

CONFIDENTIAL

B-36H (Cont'd)

	Standard	Sta. of C. G.	Stripped	Sta. of C. G.
BASIC WEIGHT (Carrier)	184,697	78.61Ft.	168,[illegible]	79.42 ft.
Crew (12-9)	2700	71.28 ft.	2025	71.28 ft.
Oil	4650		4650	
Chaff	1408	137.5 ft.	1408	137.5 ft.
Fuel Load	176,985		193,[illegible]	
MAXIMUM TAKE-OFF WEIGHT	**370,000	72.71to79.03ft.	**370,000	72.71to79.03ft.
MAXIMUM LANDING WEIGHT	***357,500	72.71to79.03ft.	***370,000	72.71to79.03ft.

** Limited by Strength (Wing and Landing Gear)

*** Limited by Strength (Landing Gear)

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PAGE
REPORT NO.
MODEL
DATE

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RB-36 H

	Standard	Sta. of C. G.	Stripped	Sta. of C. G.
WEIGHT EMPTY	171,942		162,619	
Parasite Provisions	4107	68.9 ft.	4107	68.9 ft.
Landing Gear Modifications for 370,000 lb. Take-off	231		231	
Material Substitution	418		418	
Weight Empty Items not part of Basic Weight	-17		-17	
WEIGHT EMPTY	176,681	78.08 ft.	167,358	78.04 ft.
Trapped Fuel and Oil	1492		1492	
Propeller Hub Oil	102		102	
ADI Fluid	405		405	
Guns	1803	81.82 ft.	214	162.1 ft.
Ammunition	5796	84.79	756	157.[illegible] ft.
Dry Ice	135			
Food & Water	358		155	
Crew Comfort	528		140	
Miscellaneous	1476		1476	
Chaff Dispenser	278	137.5 ft.	263	137.5 ft.
Bomb Bay Tank*	405		405	

* Bomb Bay Tank carried only on ferry and separate take-off mission

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RB-36 (Cont'd)

	Standard	Sta. of C. G.	Stripped	Sta. of C. G.
BASIC WEIGHT (Carrier)	189,509	78.38 ft.	172,768	79.18 ft.
Cameras	1390	40.24 ft.	1390	40.24 ft.
Crew (12-9)	2700	57.32 ft.	2025	57.32 ft.
Oil	4650		4650	
Chaff	1408	137.5 ft.	1408	137.5
Fuel Load	170,343		187,781	
MAXIMUM TAKE-OFF WEIGHT	**370,000	72.71to79.03ft.	**370,000	72.71to79.03ft.
MAXIMUM LANDING WEIGHT	***357,500	72.71to79.03ft.	***357,500	72.71to79.03ft.

** Limited by Strength (Wing and Landing Gear)

*** Limited by Strength (Landing Gear)

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FUEL

B-36D, RB-36D, B-36H, and RB-36H

SPEC	MIL-F-5572
GRADE	115/145

LOCATION	No. of TANKS	GALLONS	STA. OF C. G.
Wing, Outboard	2	4496	76.79 ft.
Wing, Center	2	8146	72.63 ft.
Wing, Inboard	2	8411	69.20 ft.
Center Section, Aux.	2	9577	66.72 ft.
Bomb Bay (For Parasite)	1	1200	89.66

Note: In flight, fuel in outboard tanks is used last to provide maximum bending relief to Wing.

OIL

B-36D, RB-36D, B-36H, and RB-36H

	Recip.	Jet
Capacity (Gal.)	1200	52
SPEC.	MIL-O-6082	MIL-O-6081
GRADE	S-1120; W-1100	1010
Sta. of C. G.	71.7 ft.	85.9 ft.

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FLUID INJECTION

B-36D, RB-36D, B-36H, and RB-36H

Type:	Water/Alcohol
Location:	Engine Nacelles
No. of Tanks	6
Gallons (Total)	54
Sta. of C. G.	87.0 ft.

TRAPEZE MECHANISM

B-36D, RB-36D, B-36H, and RB-36H

Item	Weight	Sta. of C. G.
Trapeze (36L25200)	2118 lbs.	68.2 ft.
Total Parasite Provisions including: Trapeze, but excluding Bomb Bay Tank	4107 lbs.	68.9 ft.
Bomb Bay Tank (empty)	405 lbs.	89.66 ft.

RF-84F

Launch Weight	32,550 lbs.
Sta. of C. G. (B-36)	73.3 ft.

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REFERENCES

1. Convair Report No. FZA-36-240, "Actual Performance Estimate for the B-36D Long Range, Heavy Bomber with Six Turbo Supercharged P & W R4360-41 Engines and Four J-47-GE-19 Turbojet Engines," dated 15 July 1952.

2. Convair Report No. FZA-36-242, "Actual Performance Estimate for the RB-36D Long Range, Heavy Reconnaissance Bomber with Six Turbo Supercharged P & W R4360-41 Engines and Four J-47-GE-19 Turbojet Engines," dated 30 September 1952.

3. Convair Report No. FZA-36-079, The Effects of Weight and Drag Changes on the Performance of the B-36B Airplane, dated 26 November 1948.

4. Convair Report No. FZA-36-308, "Performance Estimate for the RB-36D/RF-84F Ficon Parasite System Based on Phase IV Flight Tests of the B-36D Airplane", dated 1 January 1954.

5. Convair Report No. FZA-36-278, "Performance Estimate for B-36F and B-36H Aircraft Based on Phase IV Flight Tests", dated 15 June 1953.

6. Convair Report No. FZA-36-279, "Performance Estimate for RB-36F and RB-36H Aircraft Based on Phase IV Flight Tests", dated 18 September 1953.

7. Convair Report FZA-36-307 - "Standard Aircraft Characteristics for RB-36D/RF-84F Ficon Parasite System", dated 1 January 1954.

8. Convair Report FZA-36-051 - "Statement of Work for Production Ficon Installation in RB-36 Airplanes", dated 13 February 1953.

9. T.O. 1B-36(R)D(G)-1 / 1F-84(R)F(G)-1 - Flight Handbook

10. T.O. 1B-36(R)D(G)-2 - Maintenance Handbook

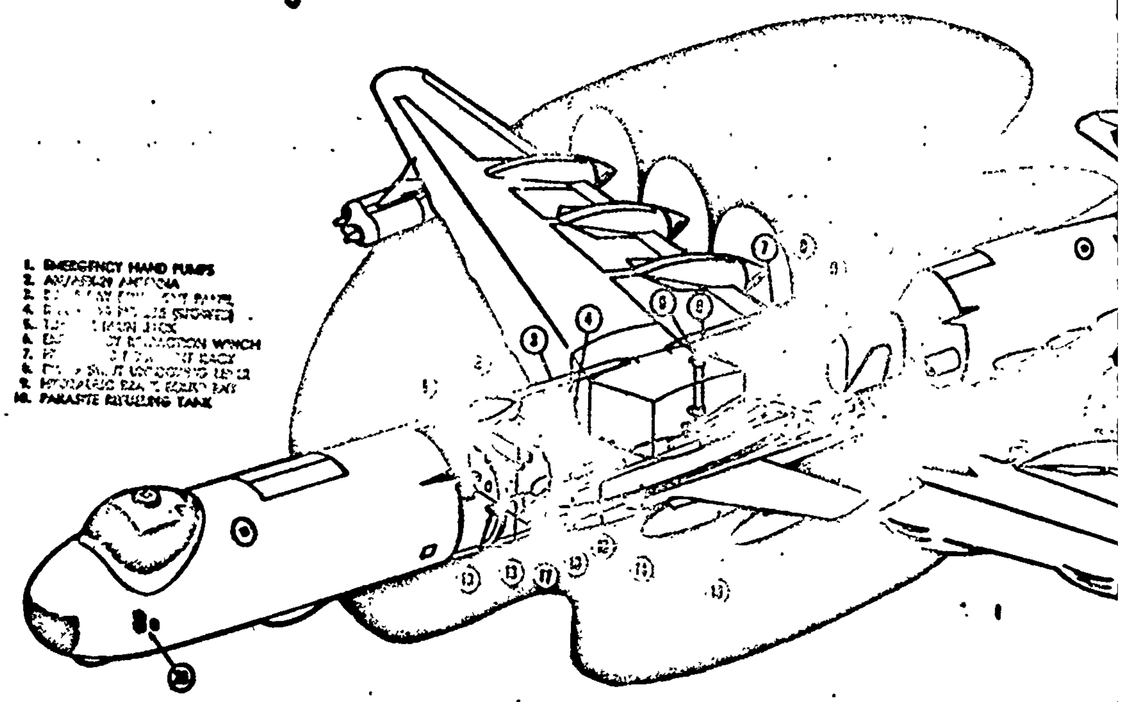
APPENDIX TO SECTION I

DRAWING NO.	PAGE
Plate 1 - General Arrangement Perspective	A-1
Plate 2 - Trapeze Operation Perspective	A-2
FW5410004 - General Arrangement - B-36 and RB-36 Airplanes.	A-3
FWAP#825 - B-36 Fuselage Structure Diagram	A-4
FWAP#1094 - RB-36 Fuselage Structure Diagram	A-5
FW5410001 - Layout - Clearance Dimensions for B-36 Carrier and Parasite	A-6
FW5410002 - Layout - Wing Ordinates and Lower Surface Clearance	A-7
36L25200 - Sht. 2 - Mechanism Instl. - Trapeze	A-8
36L25200 - Sht. 3 - Mechanism Instl. - Trapeze	A-9
FW5410003 - Layout - Clearance Dimensions for Trapeze and Parasite	A-10
36R14102 - Geometry - RF84 Trapeze Mechanism	A-11
FW5410005 - Layout - Enlarged Portion of 36R14102, Trapeze Geometry.	A-12
Plate 3 - Carrier's Parasite Jettison System	A-13
43F43501 - V-Probe (RF-84F)	A-14

APPENDIX TO SECTION I (Continued)

DRAWING NO.			PAGE
43F43522	-	V-Probe Assy. (RF-84F)	A-15
43F43506	-	V-Probe Installation (RF-84F)	A-16
43F43518	-	Pin Installation - Rear Suprort (RF-84F)	A-17
Plate 4	-	Parasite Hydraulic Schematic	A-18
Plate 5	-	Parasite Pilot's Release Controls	A-19
Plate 6	-	Doors and Fairings (Ficon Bay)	A-20
Plate 7	-	B-36 Loading Position	A-21

General Arrangement



PAGE A-1
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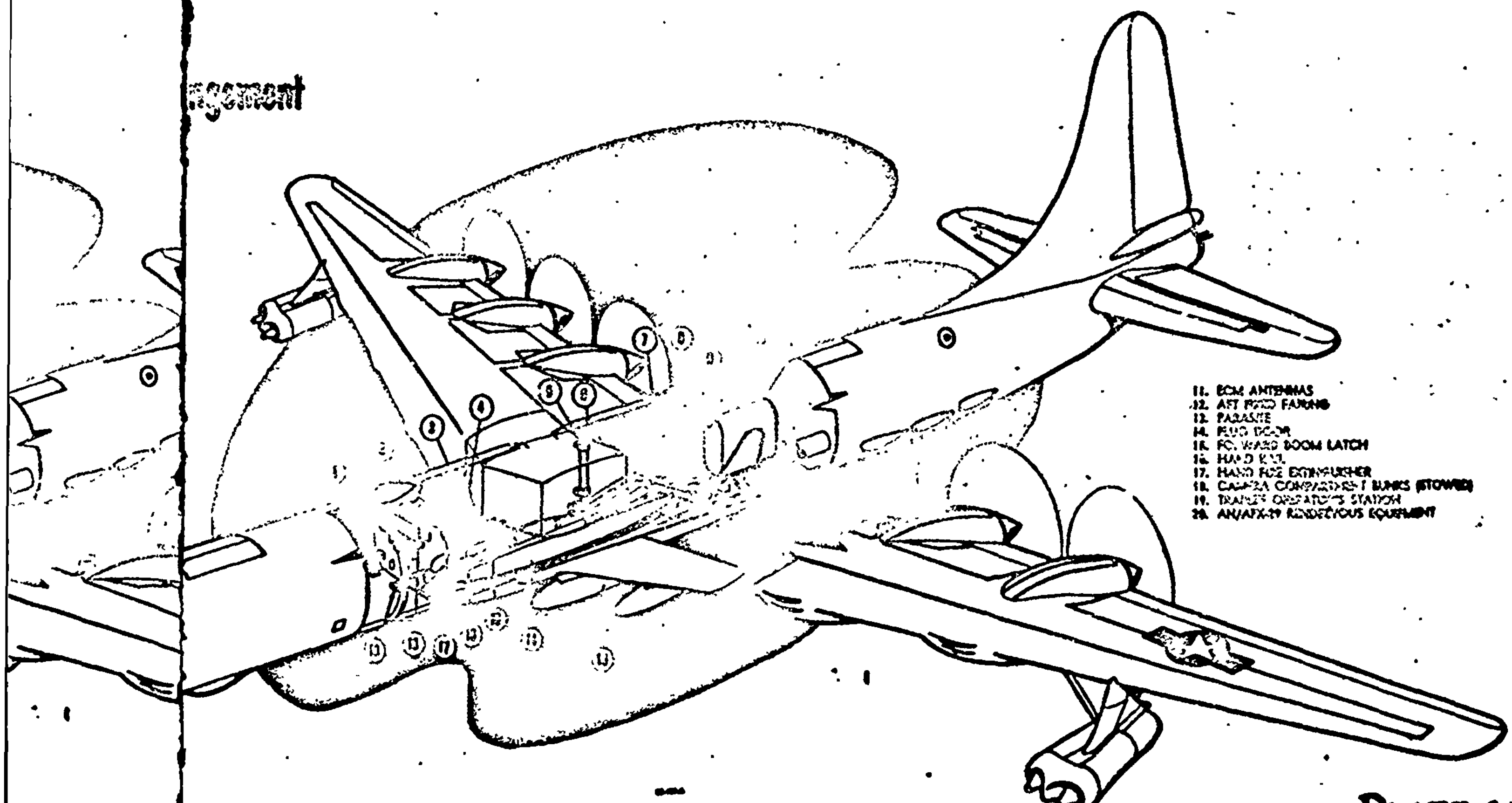


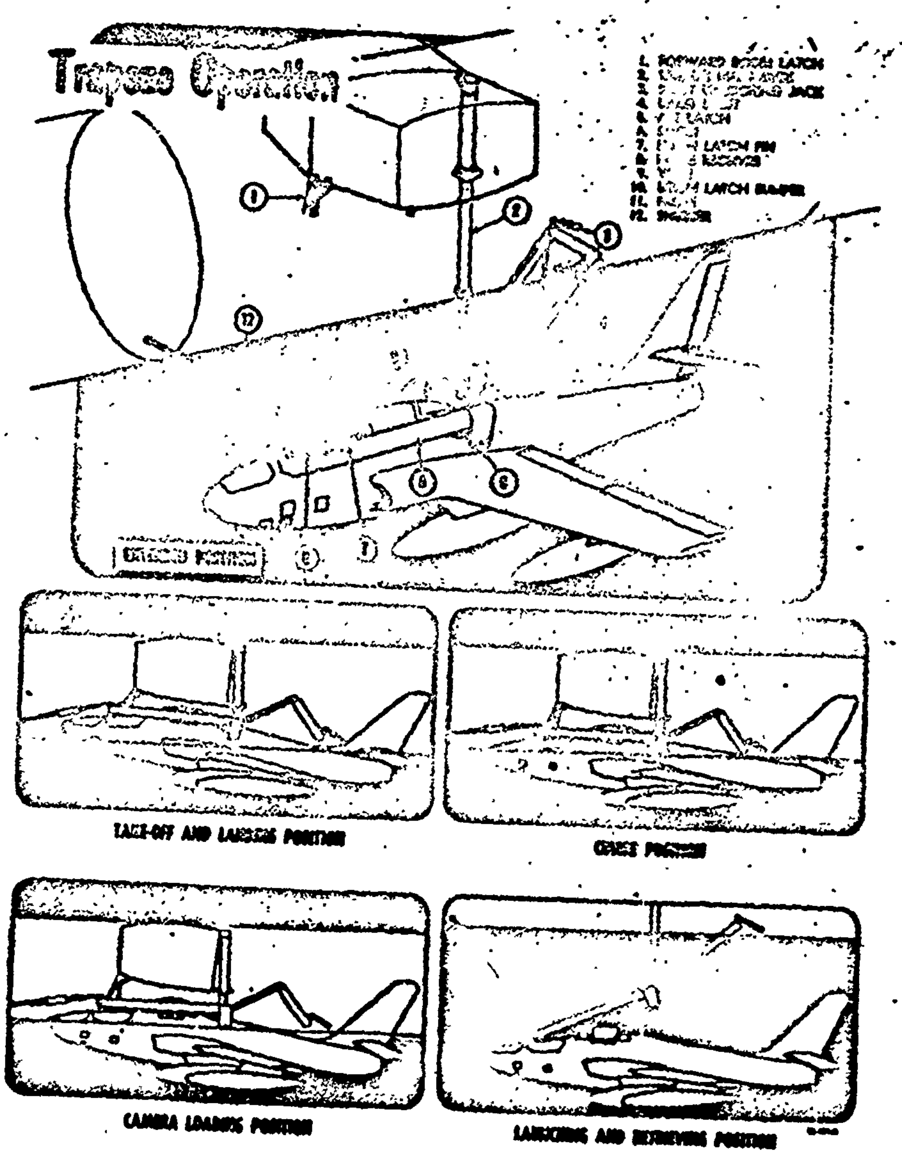
11. ECM ANTENNAS
12. AFT FIXED FAIRING
13. PARASITE
14. PLUG DOOR
15. FORWARD BOOM LATCH
16. HAND [illegible]
17. HAND FIRE EXTINGUISHER
18. CAMERA COMPARTMENT BUNKS (STOWED)
19. TRAPEZE OPERATOR'S STATION
20. AN/APX-29 RENDEZVOUS EQUIPMENT

PLATE 1

SECRET

~~CONFIDENTIAL~~

2


Trapeze Operation
1. FORWARD BOOM LATCH
TAKE-OFF AND LANDING POSITION
CRUISE POSITION
CAMERA LOADING POSITION
LAUNCHING AND RETRIEVING POSITION

SECRET

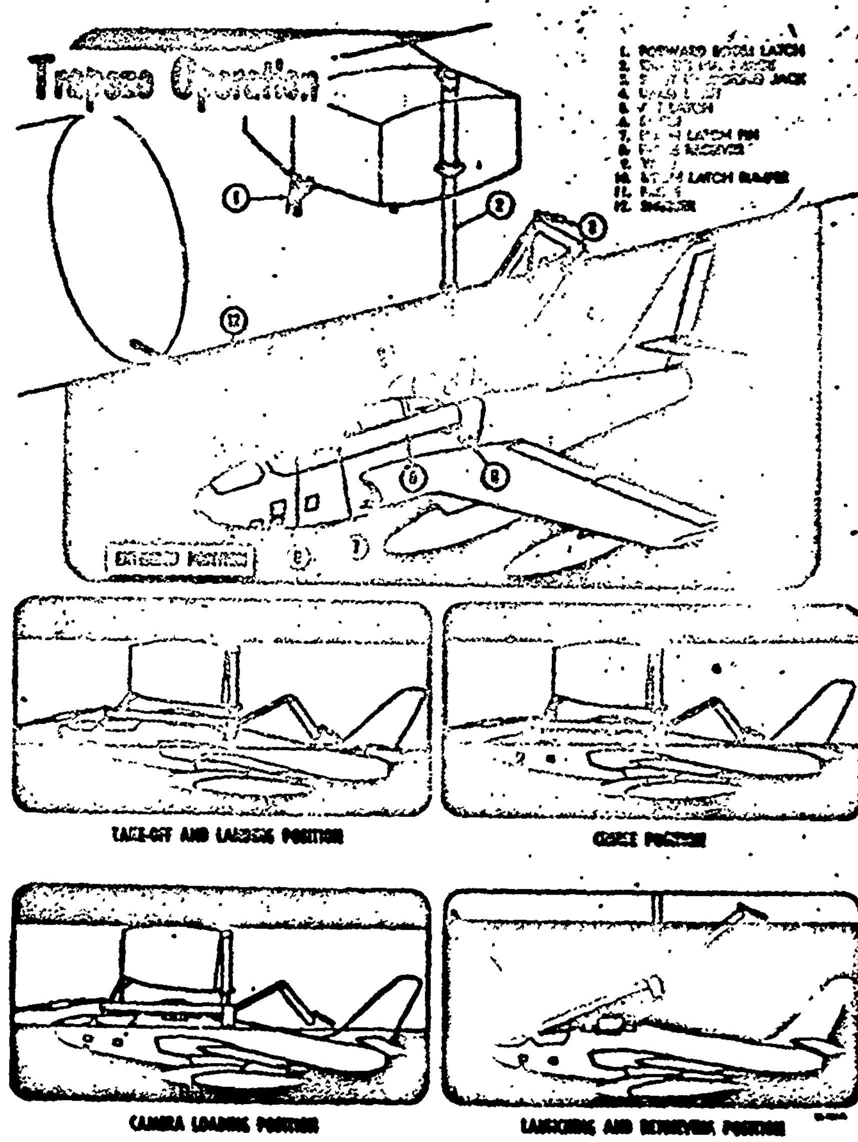


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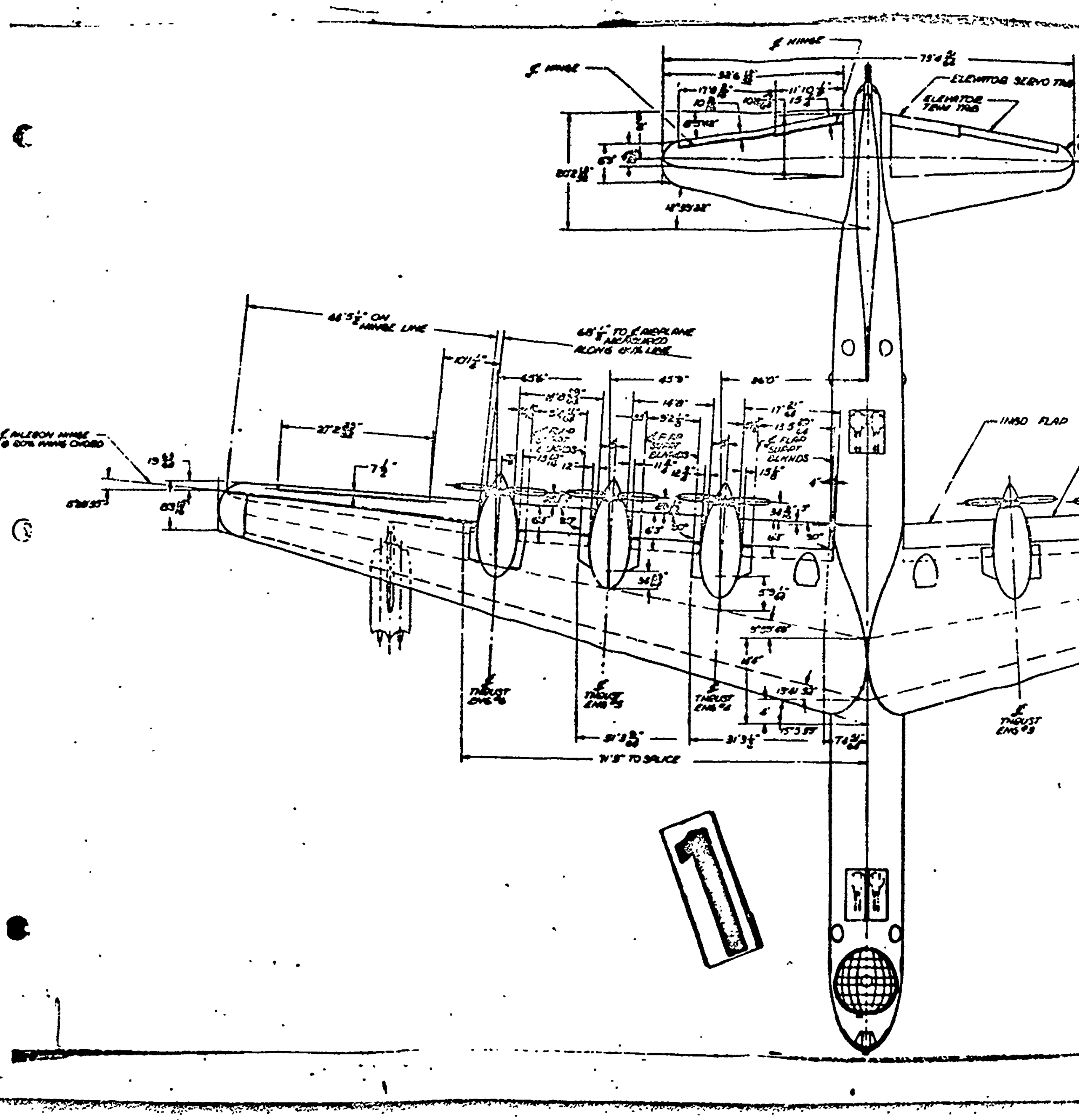
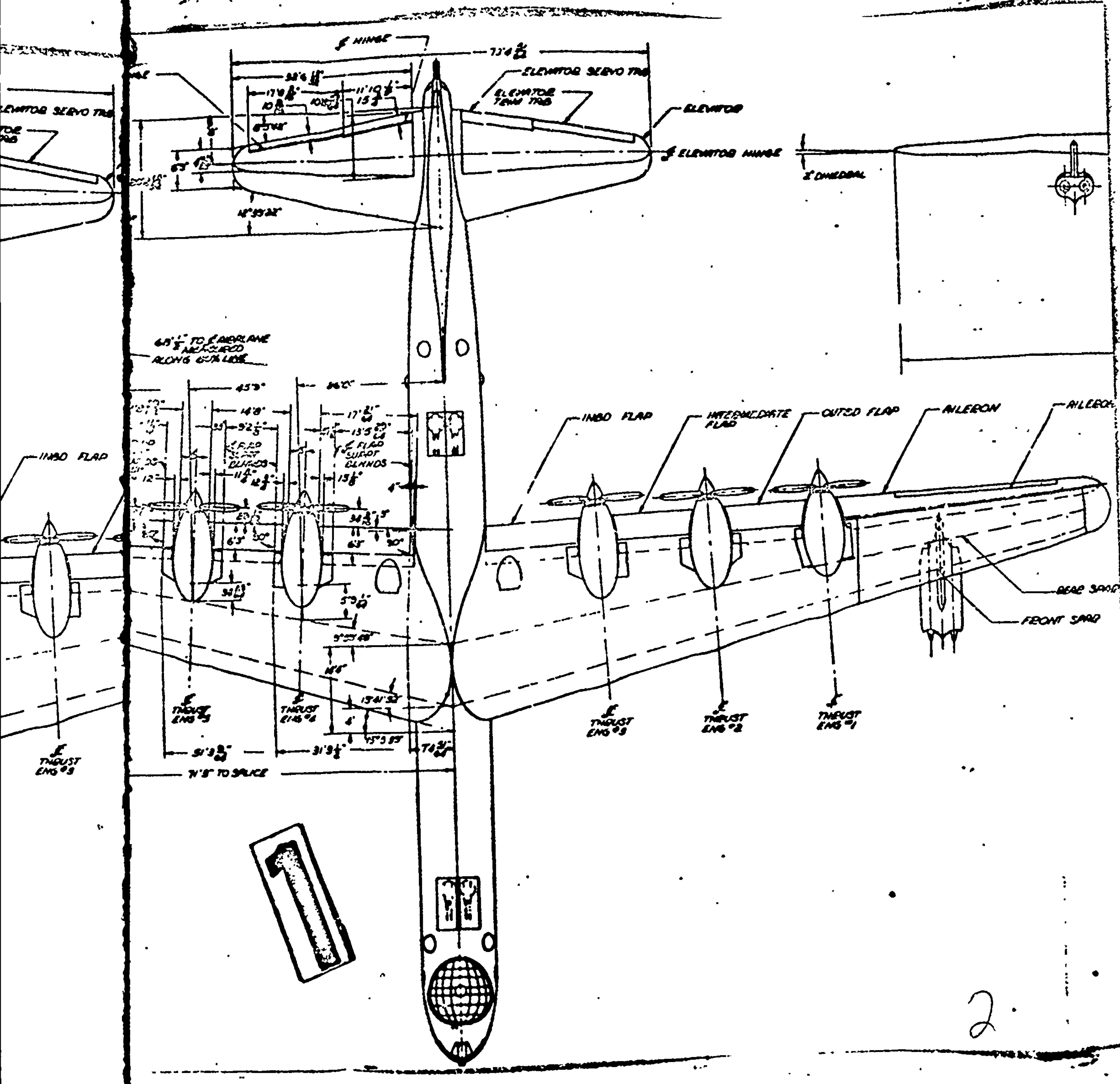
PLATE 2

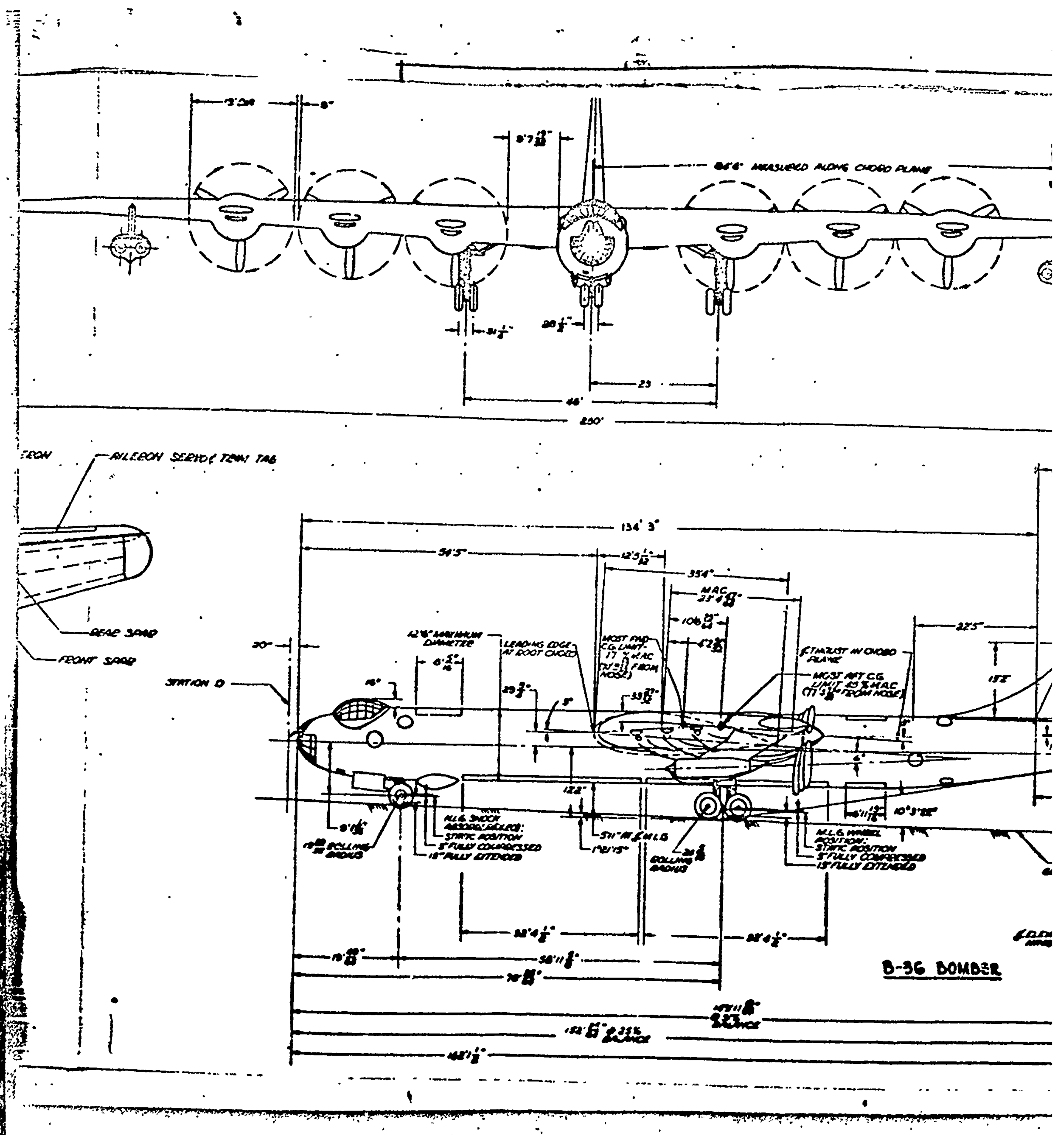


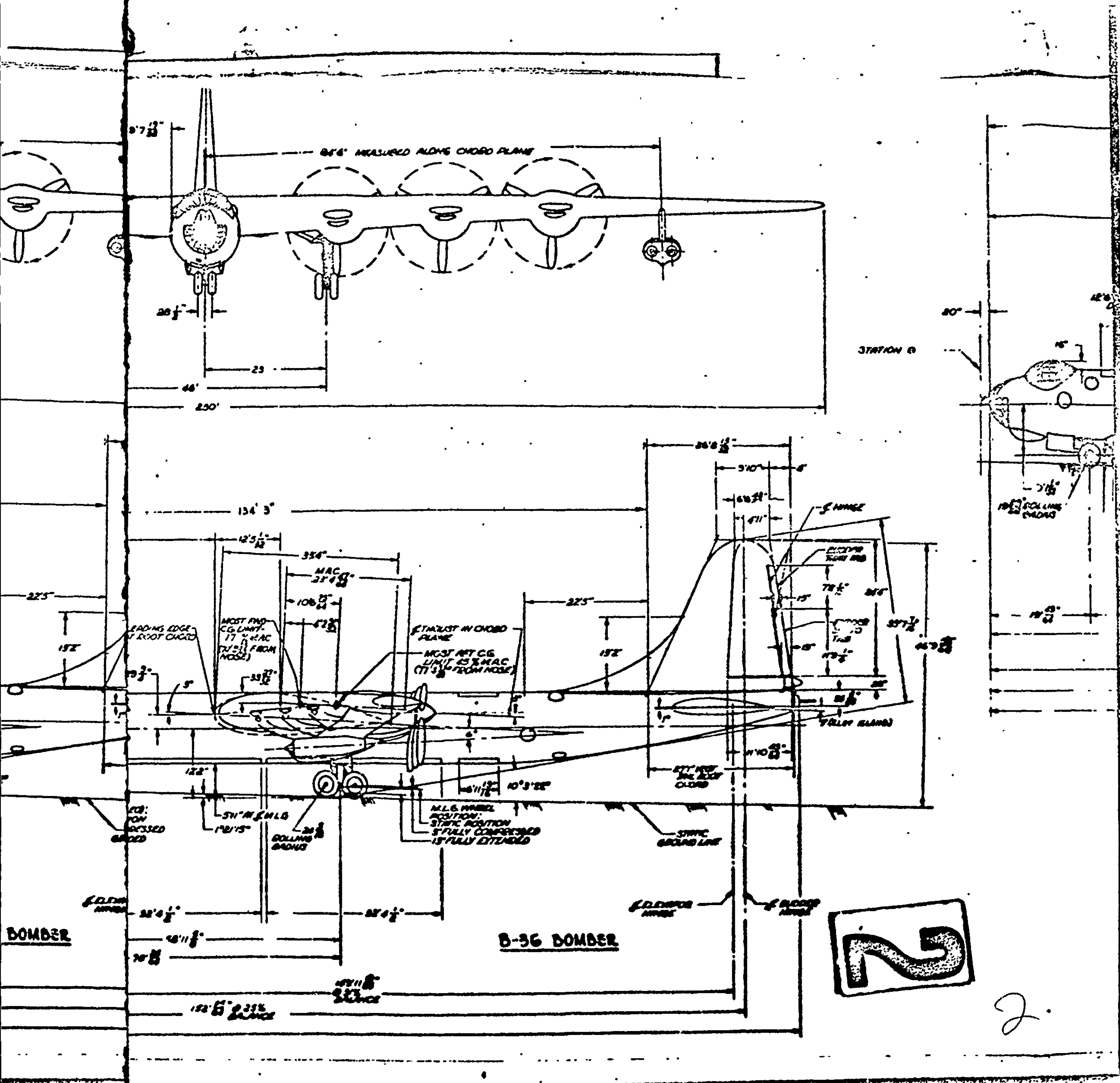
ELEVATOR SERVO TAB
ELEVATOR TRIM TAB
INBD FLAP
THRUST ENG #6
THRUST ENG #5
THRUST ENG #4
THRUST ENG #3



ELEVATOR SERVO TAB
ELEVATOR TRIM TAB
ELEVATOR
ELEVATOR HINGE
2° DIHEDRAL
INBD FLAP
INTERMEDIATE FLAP
OUTBD FLAP
AILERON
REAR SPAR
FRONT SPAR
THRUST ENG #3
THRUST ENG #2
THRUST ENG #1
TO SPLICE

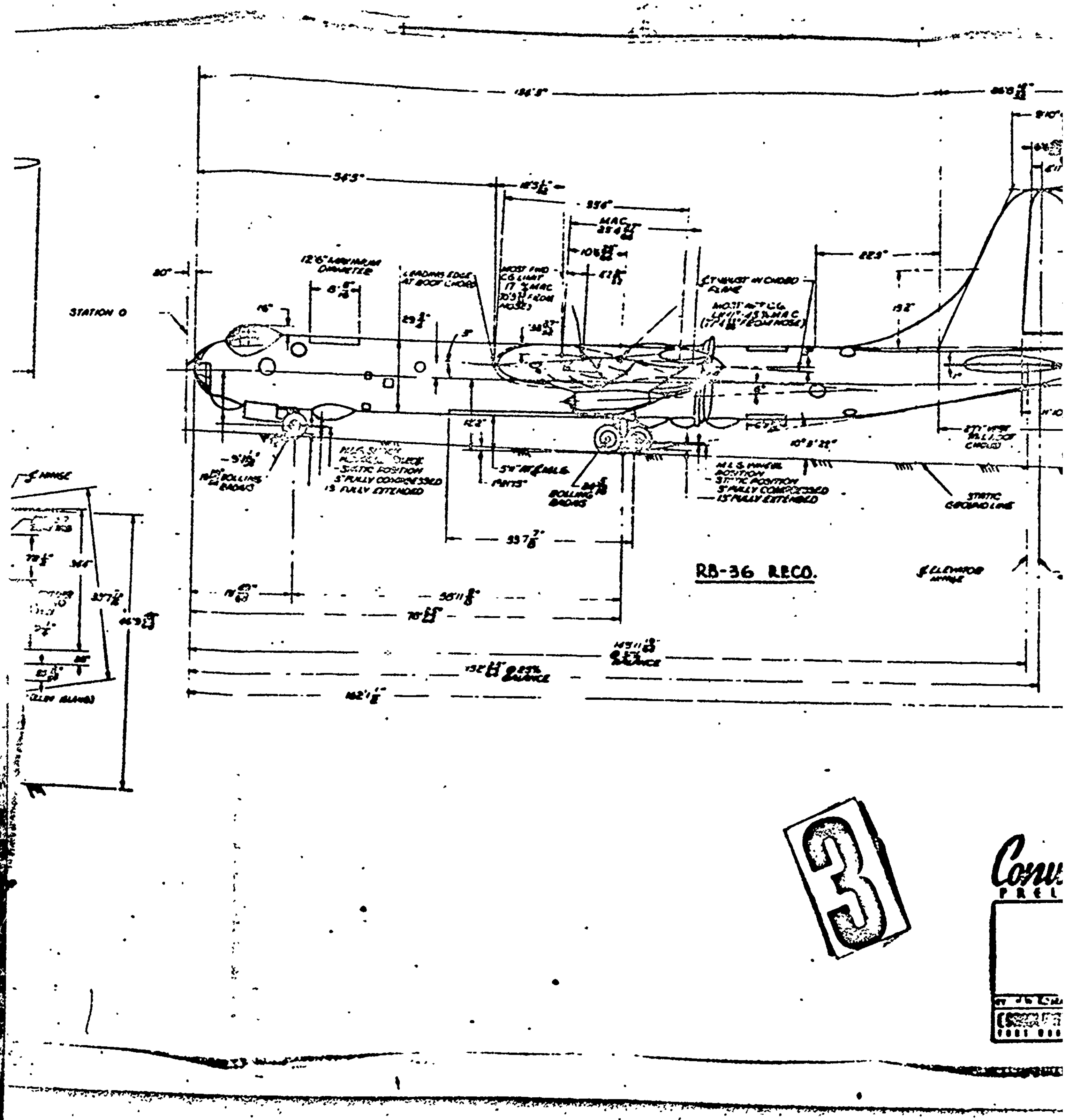
2


84'6" MEASURED ALONG CHORD PLANE
23
46'
230'
AILERON SERVO & TRIM TAB
REAR SPAR
FRONT SPAR
134' 3"
54'5"
STATION 0
12'6" MAXIMUM DIAMETER
LEADING EDGE AT ROOT CHORD
MOST FWD C.G. LIMIT
MOST AFT C.G. LIMIT
M.L.G. WHEEL POSITION:
STATIC POSITION
5" FULLY COMPRESSED
13" FULLY EXTENDED
B-36 BOMBER

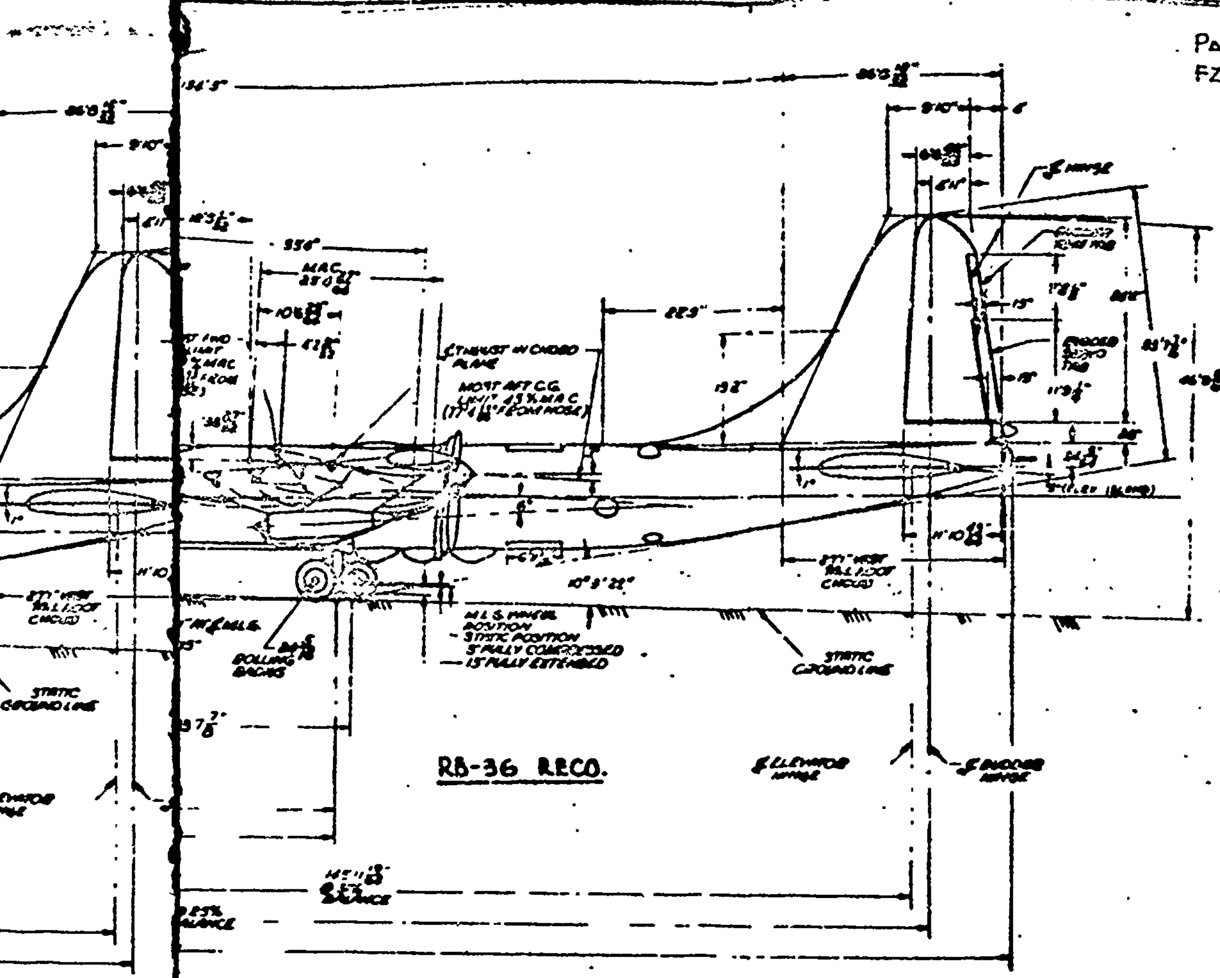

MEASURED ALONG CHORD PLANE
STATION 0
134' 3"
MOST AFT C.G.
THRUST IN CHORD PLANE
STATIC GROUND LINE
M.L.G. WHEEL POSITION:
STATIC POSITION
5" FULLY COMPRESSED
15" FULLY EXTENDED
BOMBER
B-36 BOMBER

2

2


STATION 0
RB-36 RECO.
MAC
STATIC GROUND LINE

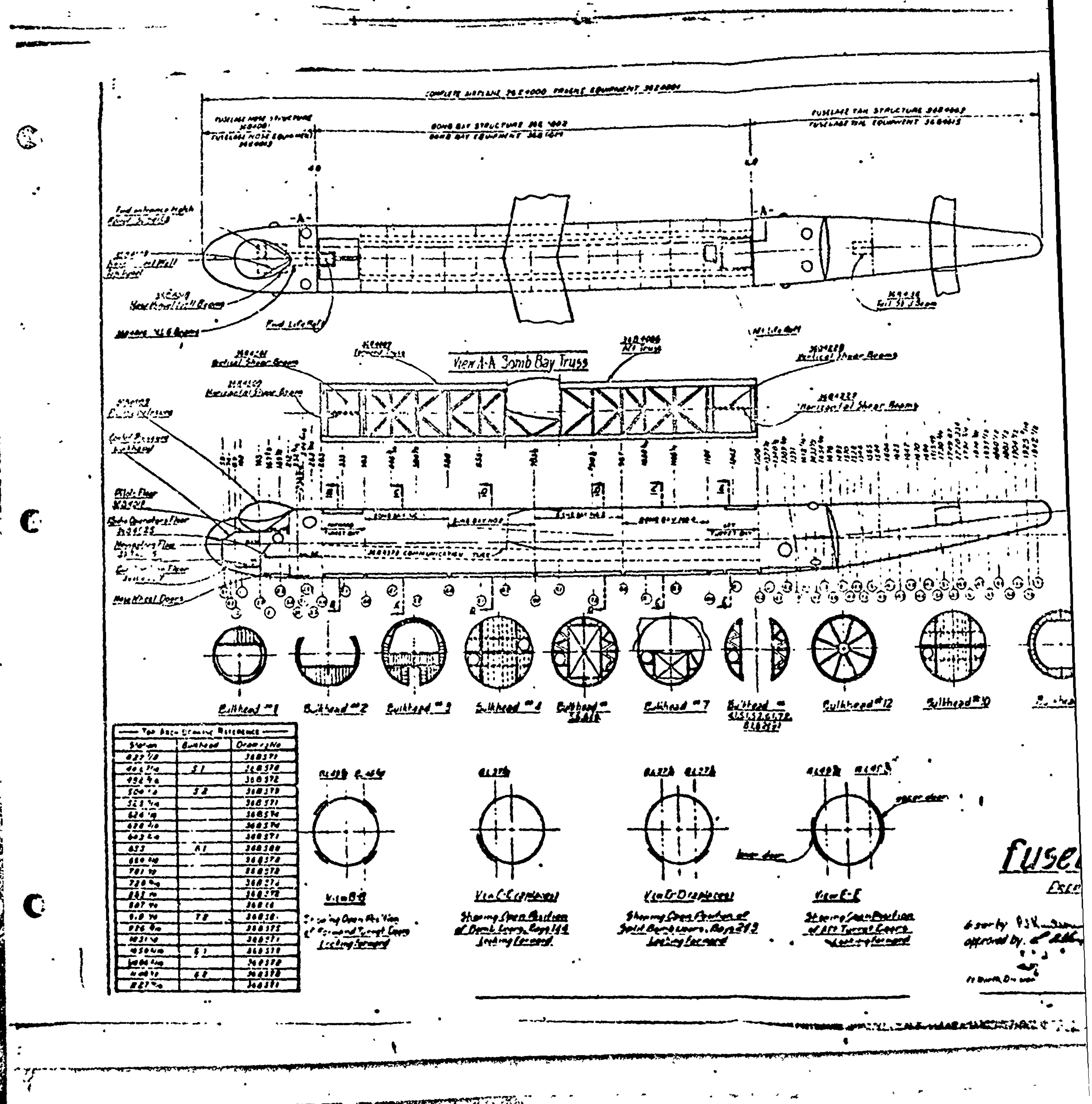
Page A-3
FZA-36-325



Convair
PRELIMINARY DESIGN DRAWING

GENERAL ARRANGEMENT
B-36 & RB-36 AIRPLANES

CONSOLIDATED VULTEE AIRCRAFT CORPORATION
FORT WORTH DIVISION
FW5410004



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[illegible]	S2	368373
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[illegible]		368374
[illegible]		368374
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[illegible]		368374
[illegible]		368378
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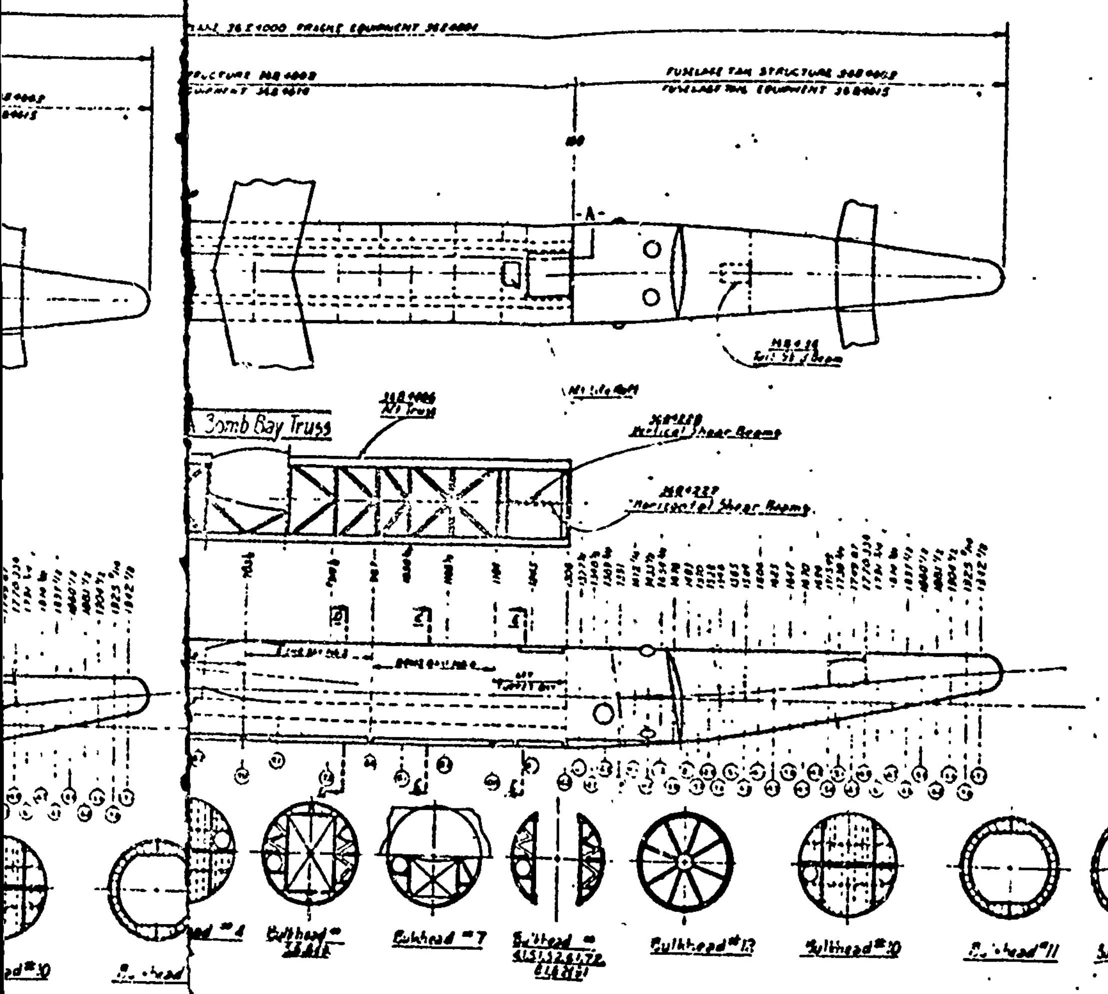
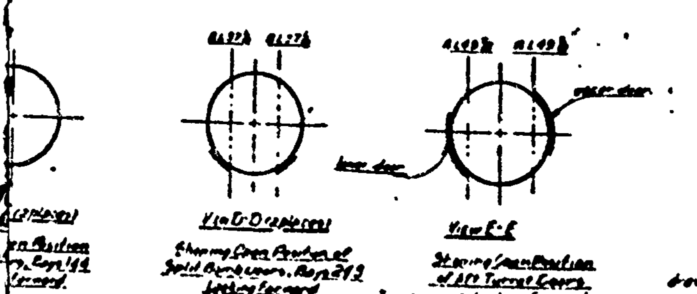
[illegible]		368375
[illegible]		[illegible]
[illegible]	6 1	368378
[illegible]		368378
[illegible]	6 2	368378
[illegible]		368371

FUSELAGE BULKHEAD DRAWING REFERENCE			
STATION	DRAWING NO.	STATION	DRAWING NO.
01	3684101	101	3684101
02	3684102	102	3684102
10	3684110	103	3684103
11	3684011	110	3684110
20	3684020	111	3684111
21	3684021	112	3684112
22	3684022	113	3684113
30	3684030	120	3684120
305	[illegible]	121	3684121
31	3684031	122	3684122
32	3684032	123	3684123
33	3684033	130	3684130
40	3684040	131	3684131
41	3684041	140	3684140
50	3684050	141	3684141
51	3684051 (LH)	142	3684142
	3684051 (RH)	143	3684143
52	3684052	144	3684144
60	3684060	145	3684145
61	3684061 (LH)	150	3684150
	3684061 (RH)	151	3684151
62	3684062	152	3684152
70	3684070	160	3684160
71	3684071	161	3684161
72	3684072 (LH)	162	3684162
	3684072 (RH)	163	3684163
80	3684080	164	3684164
81	3684081	165	3684165
82	[illegible]	166	3684166
90	3684090	170	3684170
91	3684091	171	3684171
100	3684100		





— B-36 —

Fuselage Structure Diagram

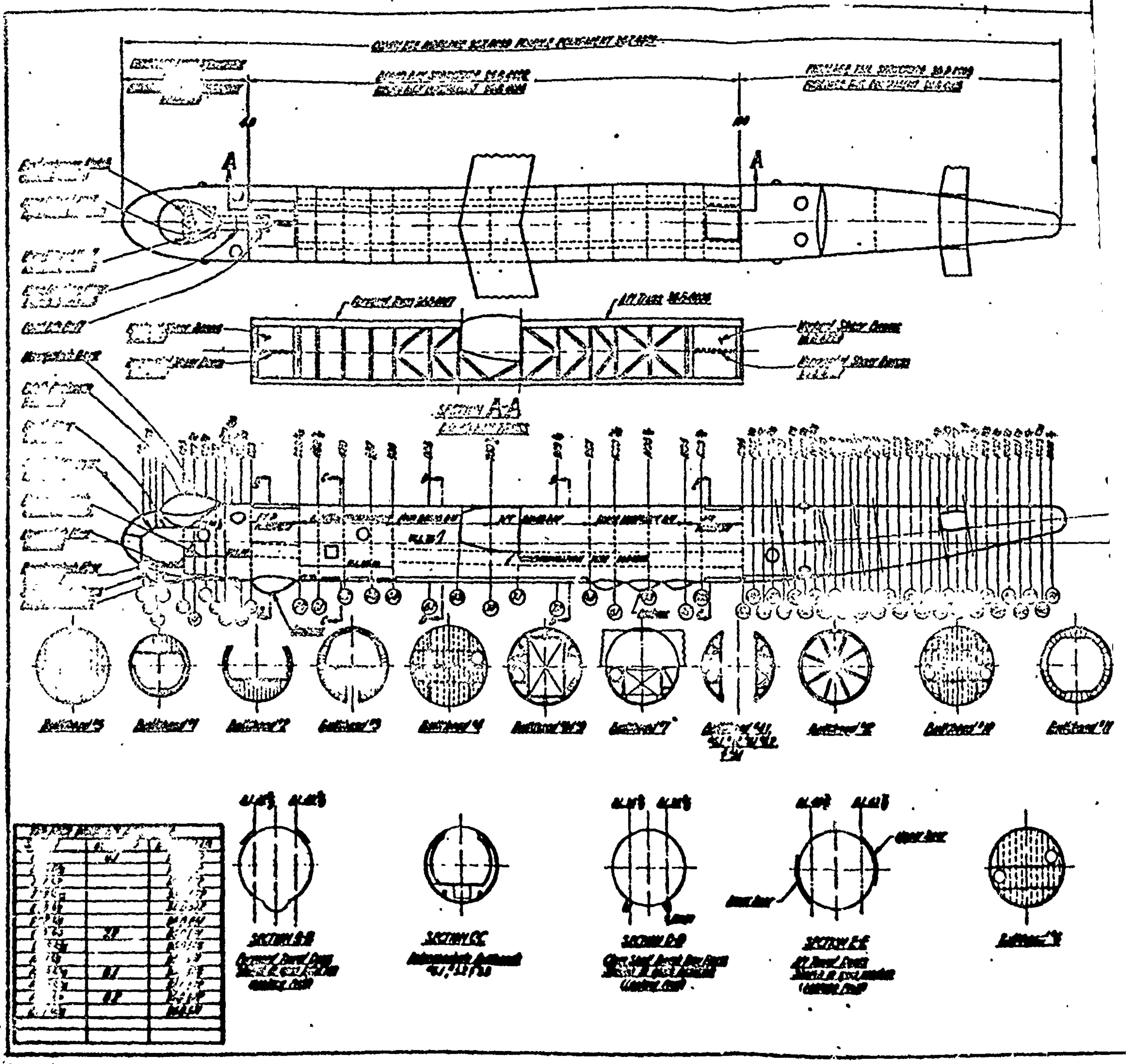
Prepared for Tooling Major Breakdown Group
(For Planning Reference)

drawn by P.J.K.
approved by

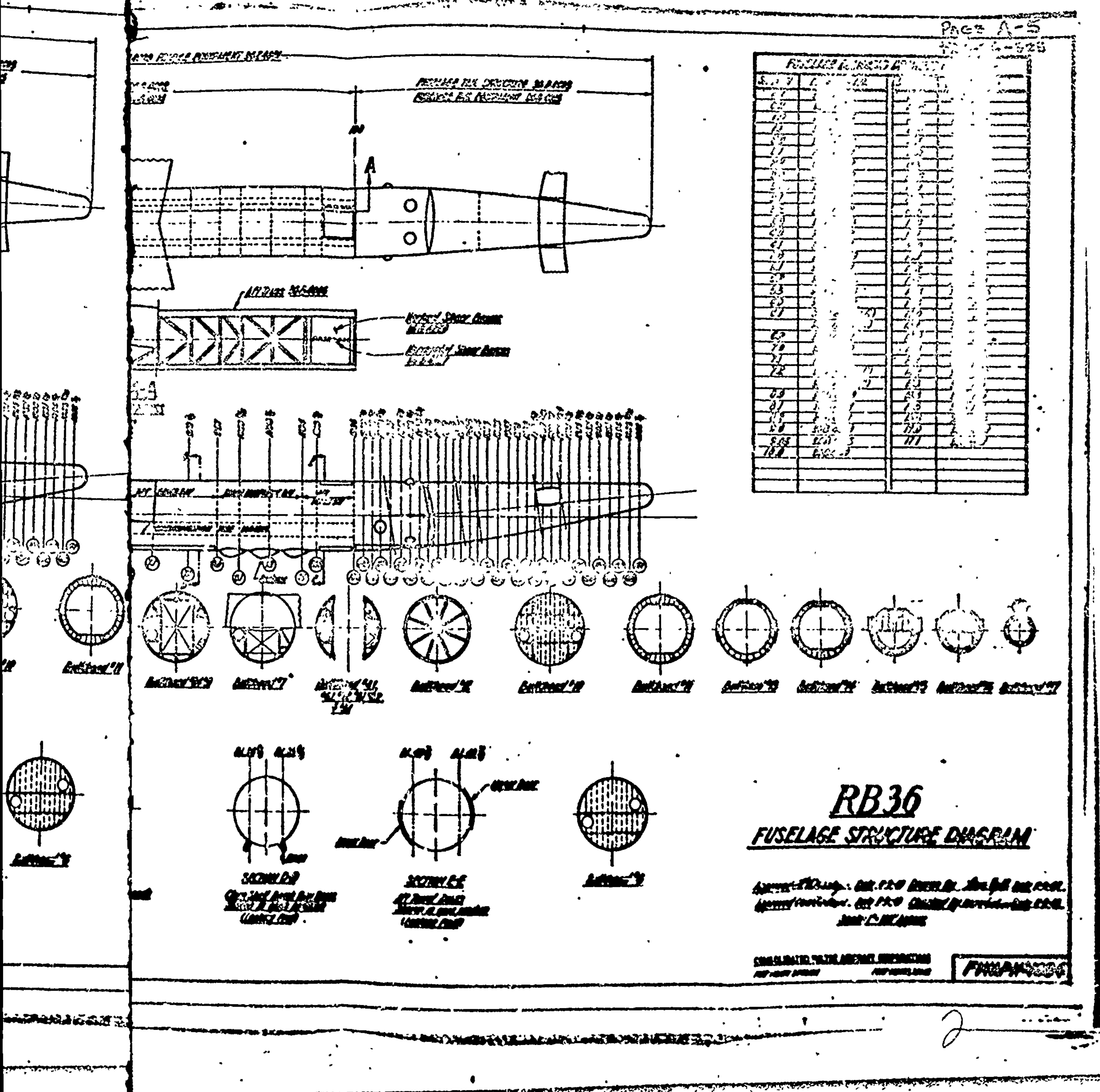
approved by
date 7-8-48

CONSOLIDATED VULTEE AIRCRAFT CORPORATION
Ft. Worth, Tex.

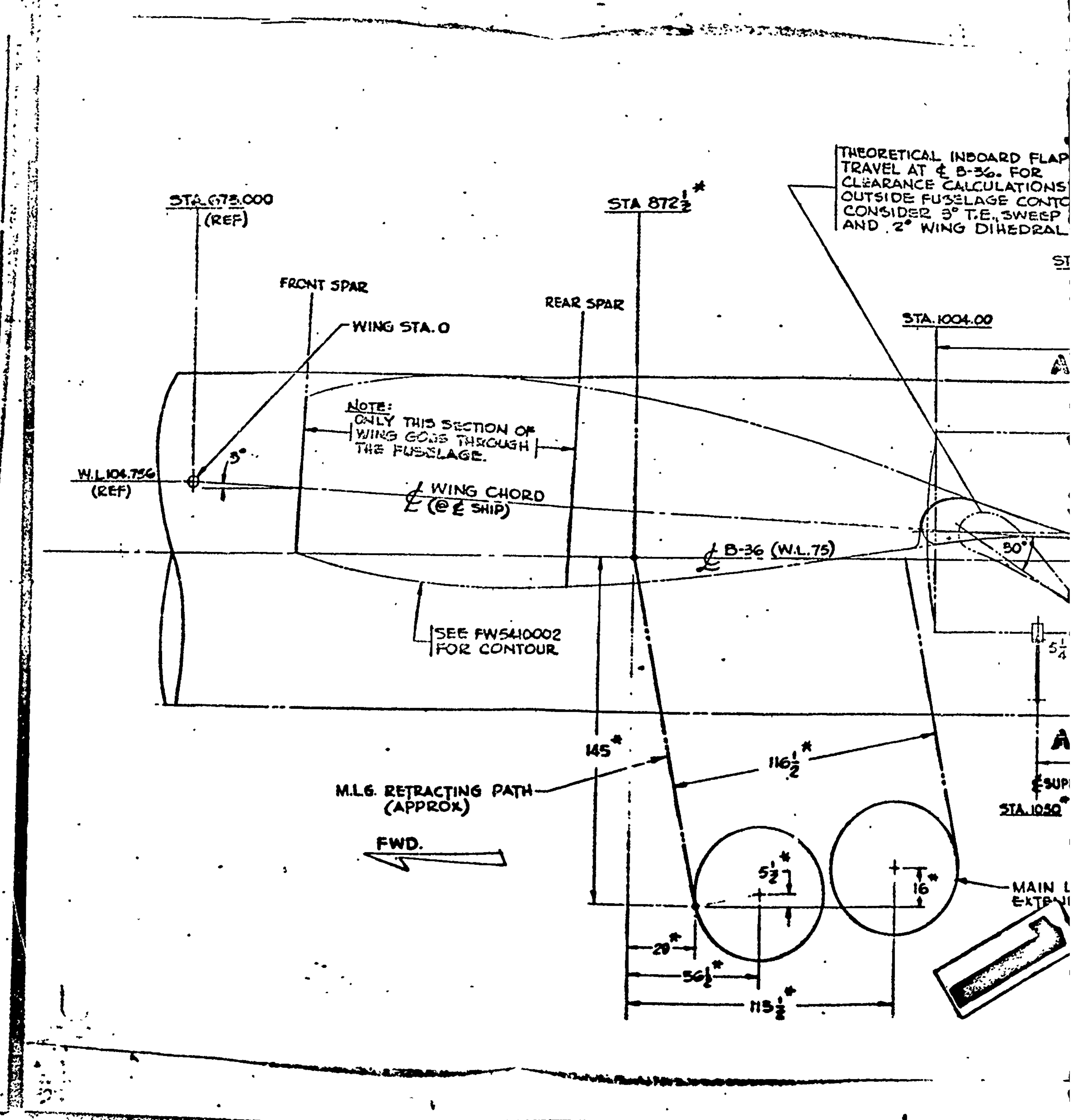
Film P no. 825



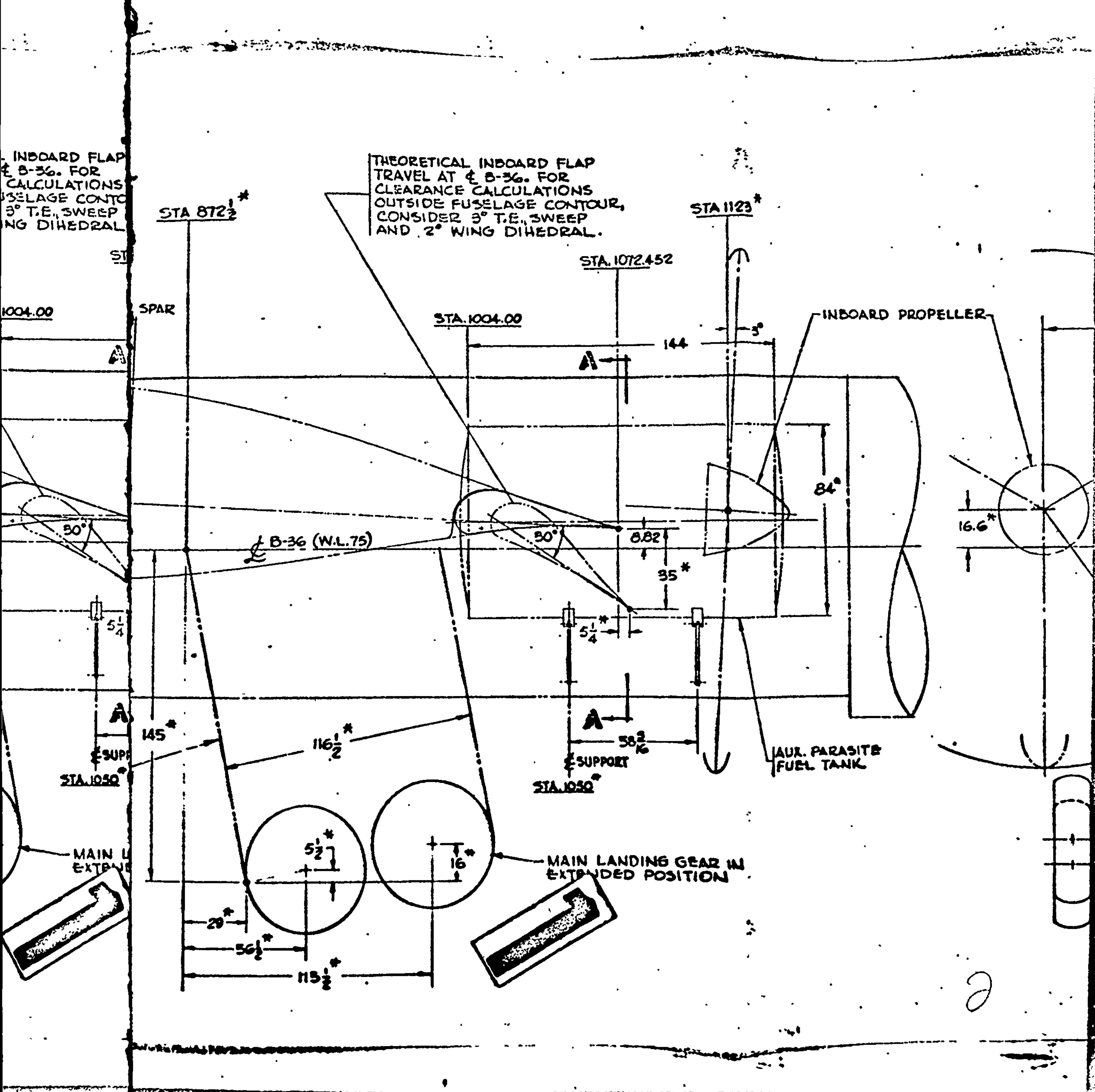
SECTION A-A
SECTION B-B
SECTION C-C
SECTION D-D
SECTION E-E



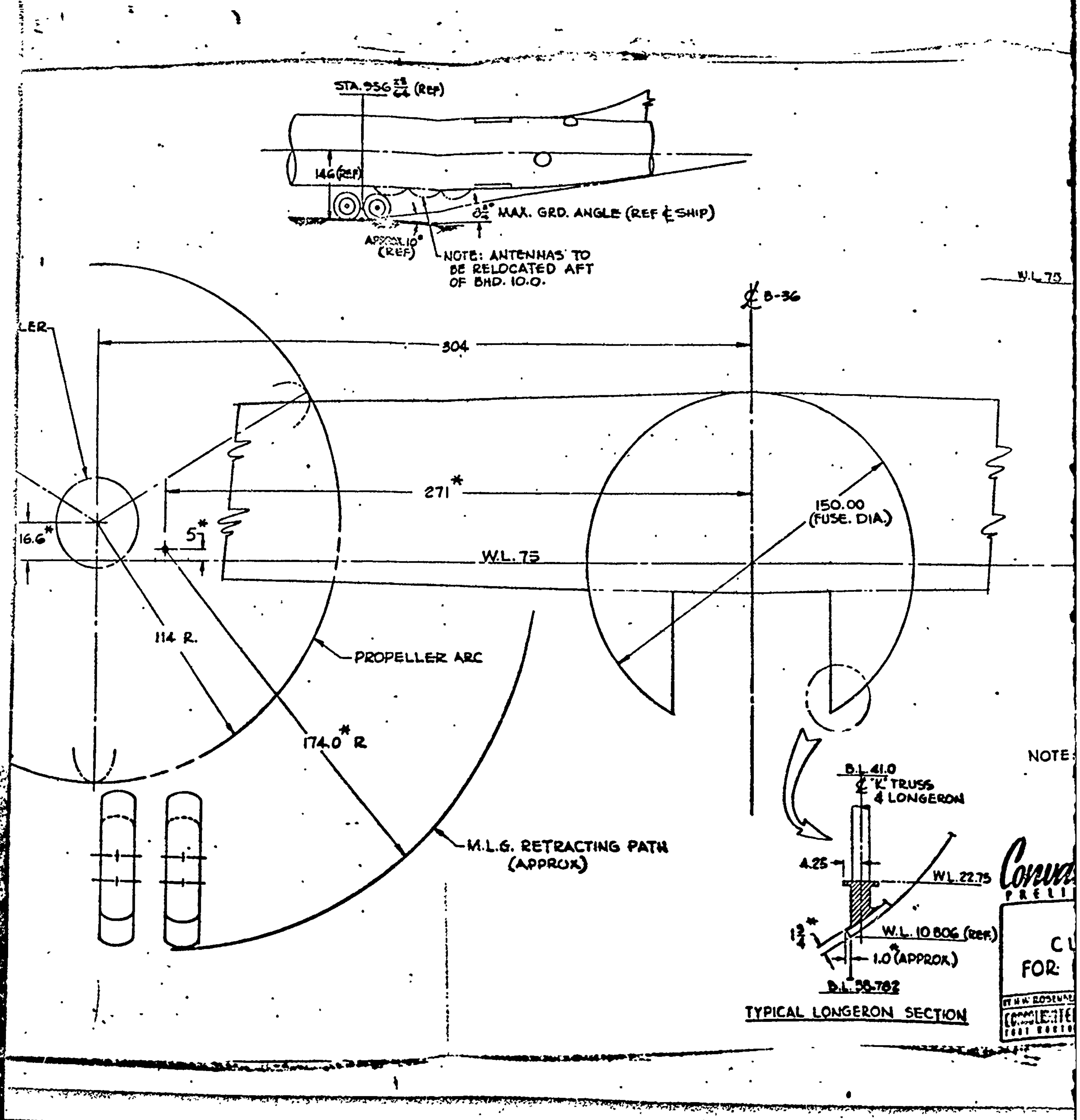
Page A-5
RB36
FUSELAGE STRUCTURE DIAGRAM



THEORETICAL INBOARD FLAP TRAVEL AT ℄ B-36. FOR CLEARANCE CALCULATIONS OUTSIDE FUSELAGE CONTO CONSIDER 3° T.E. SWEEP AND 2° WING DIHEDRAL
STA.673.000 (REF)
STA 872½*
FRONT SPAR
REAR SPAR
WING STA. O
STA.1004.00
NOTE: ONLY THIS SECTION OF WING GOES THROUGH THE FUSELAGE.
W.L.104.756 (REF)
3°
℄ WING CHORD (@ ℄ SHIP)
℄ B-36 (W.L.75)
30°
SEE FW5410002 FOR CONTOUR
5¼
145*
116½*
M.L.G. RETRACTING PATH (APPROX)
FWD.
5½*
16*
MAIN L EXTEN
STA.1050*
29*
56½*
115½*

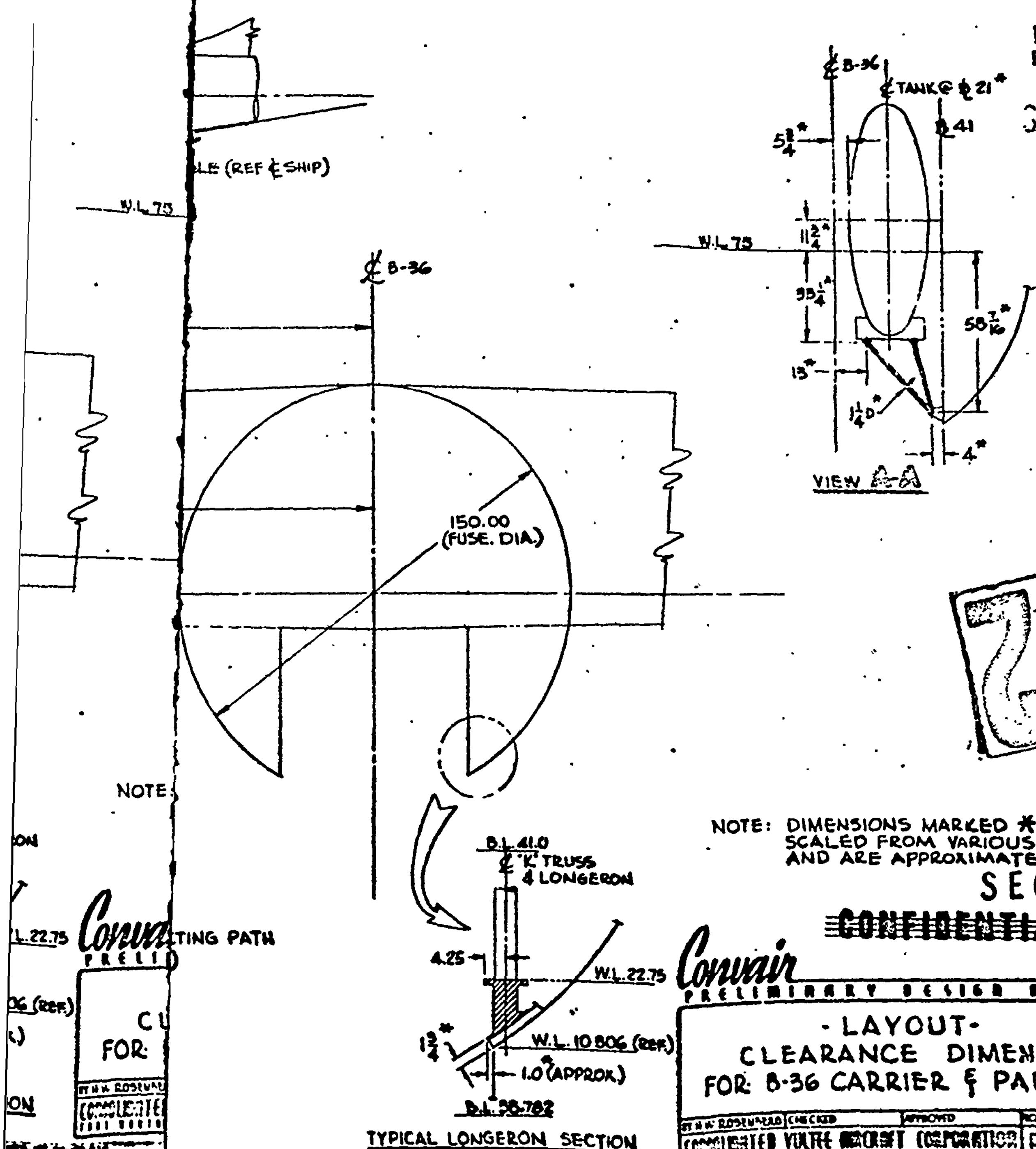


THEORETICAL INBOARD FLAP TRAVEL AT ℄ B-36. FOR CLEARANCE CALCULATIONS OUTSIDE FUSELAGE CONTOUR, CONSIDER 3° T.E. SWEEP AND 2° WING DIHEDRAL.
STA 872½*
STA 1123*
STA. 1072.452
SPAR
STA. 1004.00
INBOARD PROPELLER
144
3°
A
84*
16.6*
8.82
35*
30°
℄ B-36 (W.L.75)
5¼*
145*
116½*
58 3/16
℄ SUPPORT
STA. 1050*
AUX. PARASITE FUEL TANK
5½*
16*
MAIN LANDING GEAR IN EXTENDED POSITION
29*
56½*
115½*



STA. 956 23/64 (REF)
146 (REF)
8½° MAX. GRD. ANGLE (REF ℄ SHIP)
APPROX. 10° (REF)
NOTE: ANTENNAS TO BE RELOCATED AFT OF BHD. 10.0.
W.L. 75
℄ B-36
304
271*
150.00 (FUSE. DIA.)
16.6*
5*
W.L. 75
114 R.
PROPELLER ARC
174.0* R
M.L.G. RETRACTING PATH (APPROX)
B.L. 41.0
℄ "K" TRUSS & LONGERON
4.25
W.L. 22.75
1¾*
W.L. 10.806 (REF.)
1.0* (APPROX.)
B.L. 38.782
TYPICAL LONGERON SECTION
NOTE:
FOR:

PAGE A-6
FZA-36-325



NOTE: DIMENSIONS MARKED * ARE SCALED FROM VARIOUS LAYOUTS AND ARE APPROXIMATE.

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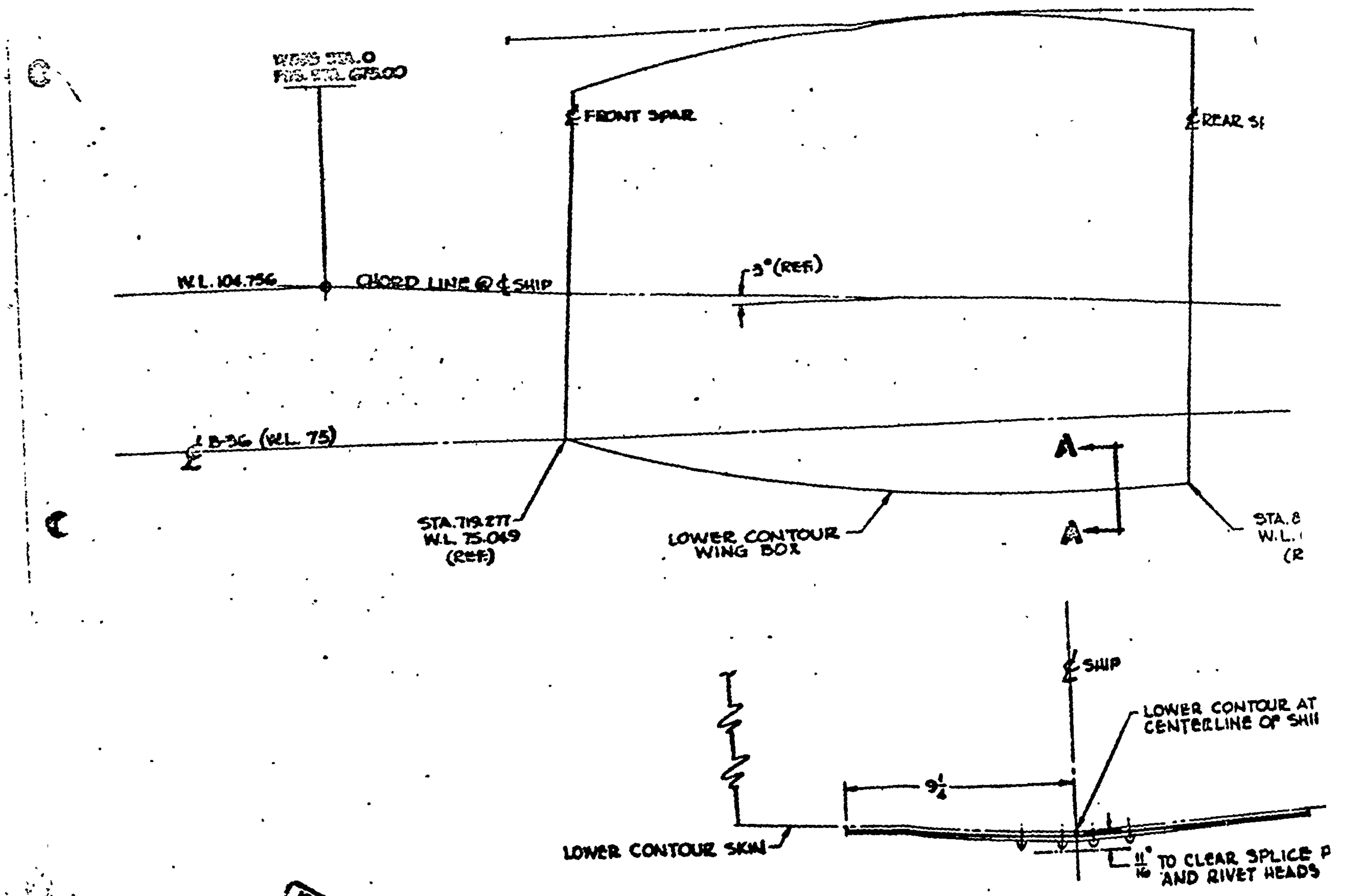
PRELIMINARY DESIGN DRAWING

- LAYOUT -
CLEARANCE DIMENSIONS
FOR B-36 CARRIER & PARASITE

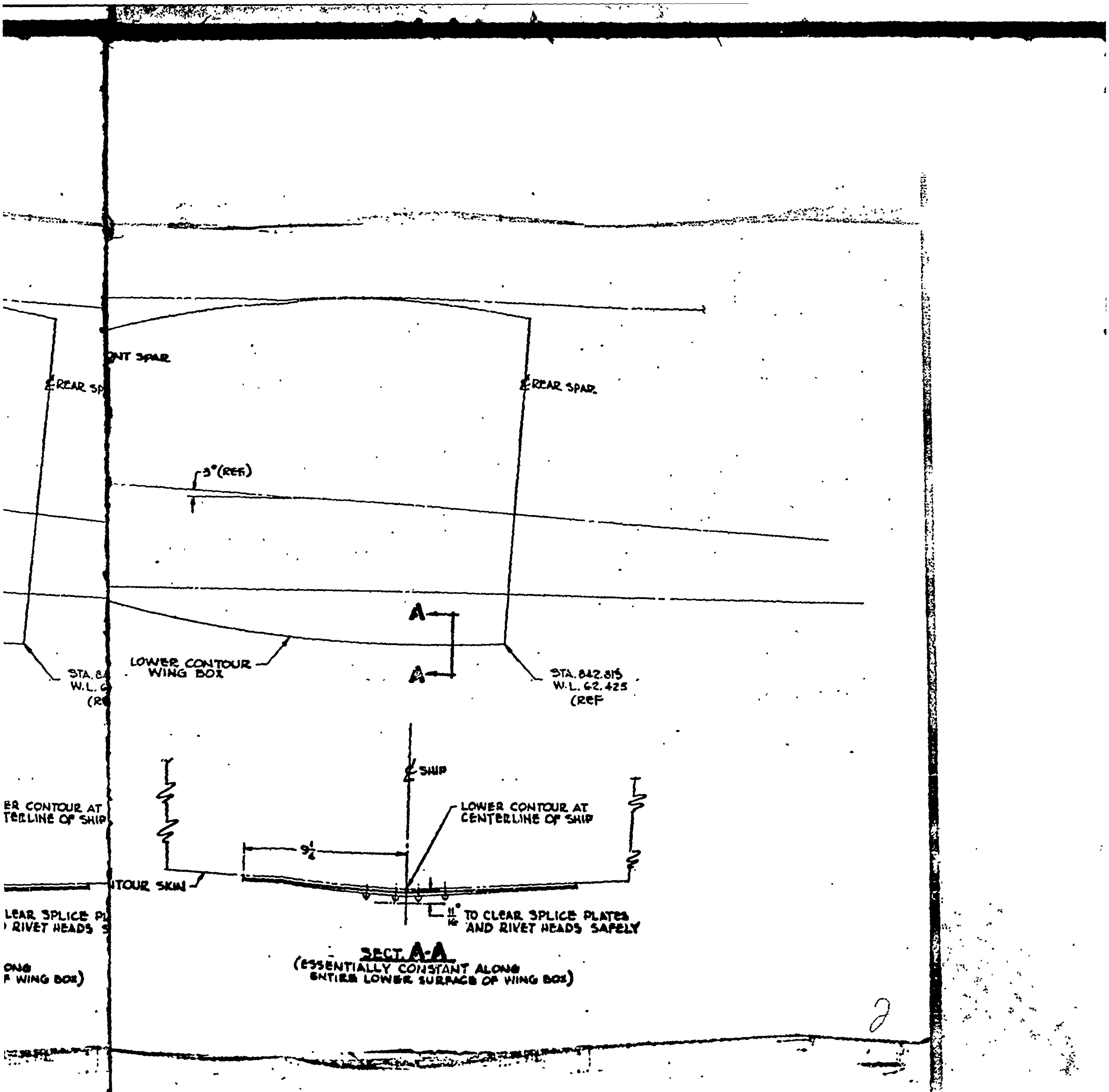
BY H.W. ROSENHEAD | CHECKED | APPROVED | SCALE | DATE

CONSOLIDATED VULTEE AIRCRAFT CORPORATION
FORT WORTH DIVISION, FORT WORTH, TEXAS

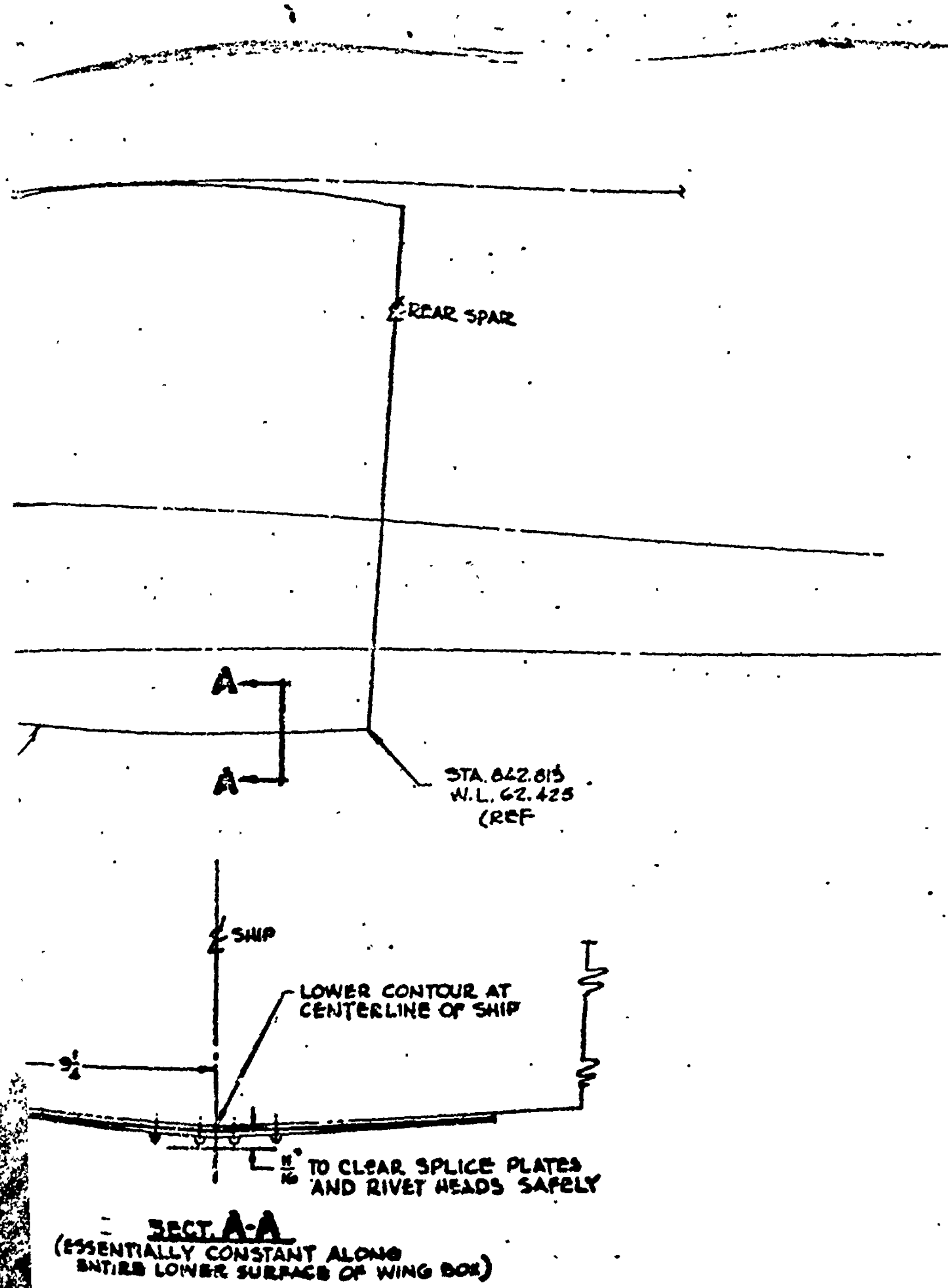
FW 5410001



SECT. A-A
(ESSENTIALLY CONSTANT ALONG
ENTIRE LOWER SURFACE OF WING BOX)



NT SPAR
℄ REAR SPA
℄ REAR SPAR
3° (REF)
A
A
LOWER CONTOUR WING BOX
STA. 842.815
W.L. 62.425
(REF
℄ SHIP
ER CONTOUR AT
TERLINE OF SHIP
LOWER CONTOUR AT CENTERLINE OF SHIP
9 1/4
NTOUR SKIN
11/16" TO CLEAR SPLICE PLATES AND RIVET HEADS SAFELY
LEAR SPLICE P
RIVET HEADS S
ONG
F WING BOX)
SECT. A-A
(ESSENTIALLY CONSTANT ALONG ENTIRE LOWER SURFACE OF WING BOX)
2



WING STA
SPAN
AT CENTER
(IN PLANE (

STATION (IN.) UPPER	UPPER ORDINAT
.050	5.318
1.334	8.95
2.604	11.10
5.132	14.20
10.175	18.79
15.204	22.50
20.229	25.37
30.270	30.54
40.501	34.8
F.SPAR 48.321	37.
50.325	38.42
60.343	41.46
80.366	46.30
100.373	49.60
120.368	51.61
140.352	52.09
160.329	51.47
R.SPAR 172.312	50.64
200.266	47.61
240.199	40.95
280.131	32.10
320.071	21.47
360.025	10.16
380.011	4.86
400.000	.0

Conv
PRELI

LAYO
LOWE

WING STATION ORDINATES
SPAN STATION #0
AT CENTERLINE OF SHIP
(IN PLANE OF SYMMETRY)

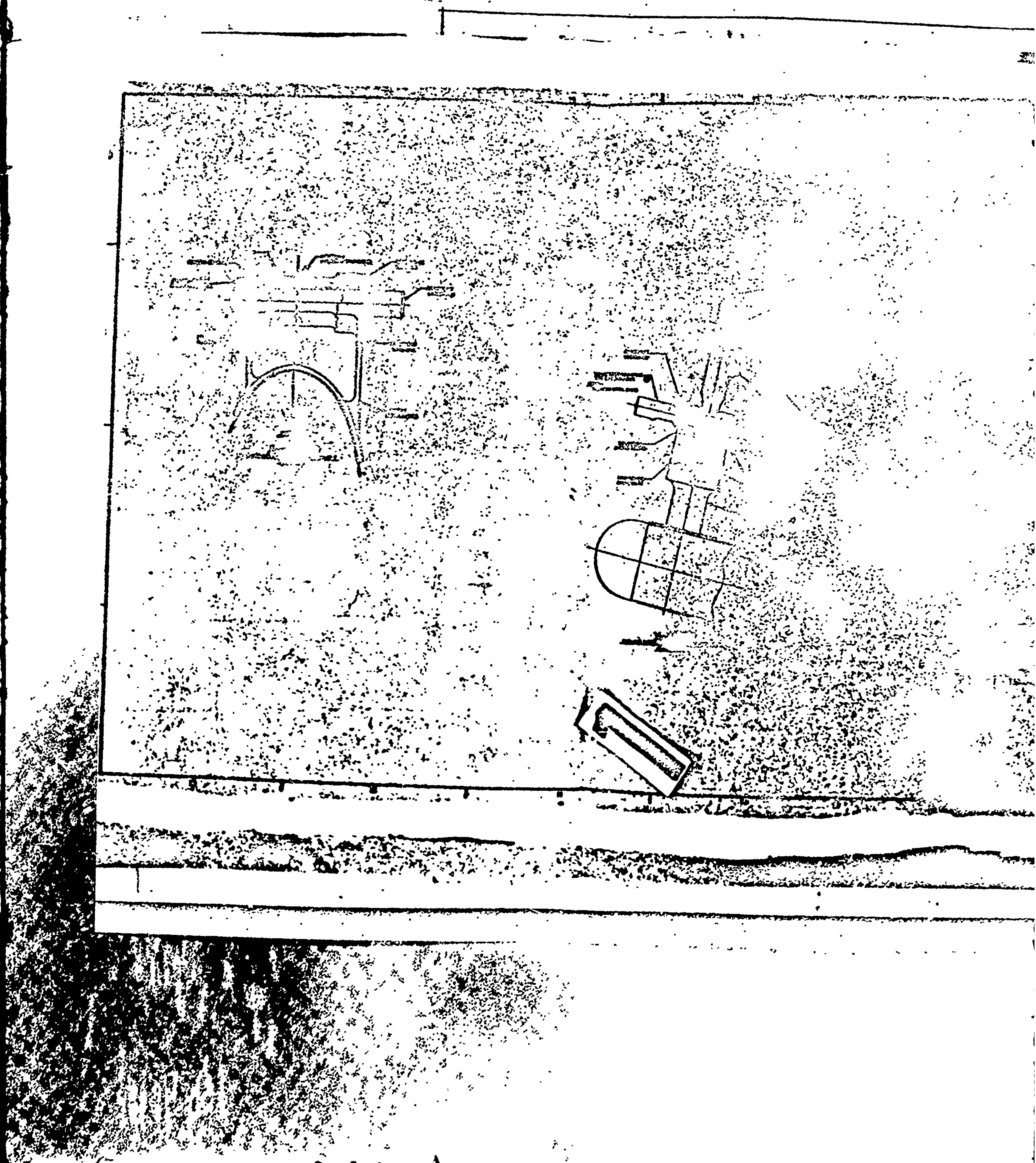
STATION (IN.) UPPER	UPPER ORDINATE (IN)	STATION (IN.) LOWER	LOWER ORDINATE (IN.)
.050	5.318	.0	-.0
1.334	8.958	1.216	-5.654
2.604	11.100	2.444	-6.927
5.132	14.206	4.915	-9.148
10.175	18.795	9.879	-13.172
15.204	22.359	14.854	-15.993
20.229	25.378	19.835	-18.511
30.270	30.543	29.605	-22.099
40.501	34.814	39.782	-25.167
F.SPAR 48.321	37.745	F.SPAR 47.768	-27.245
50.325	38.421	49.766	-27.716
60.343	41.468	59.753	-29.835
80.366	46.307	79.759	-33.041
100.373	49.681	99.736	-35.135
120.368	51.615	119.743	-36.037
140.352	52.092	139.758	-35.742
160.329	51.471	159.760	-34.491
R.SPAR 172.312	50.647	R.SPAR 171.795	-33.385
200.266	47.612	199.833	-30.015
240.199	40.986	239.885	-23.753
280.131	32.106	279.933	-16.287
320.071	21.471	319.972	-8.460
360.025	10.164	359.996	-1.721
380.011	4.863	380.000	+.017
400.000	.0	400.000	.0

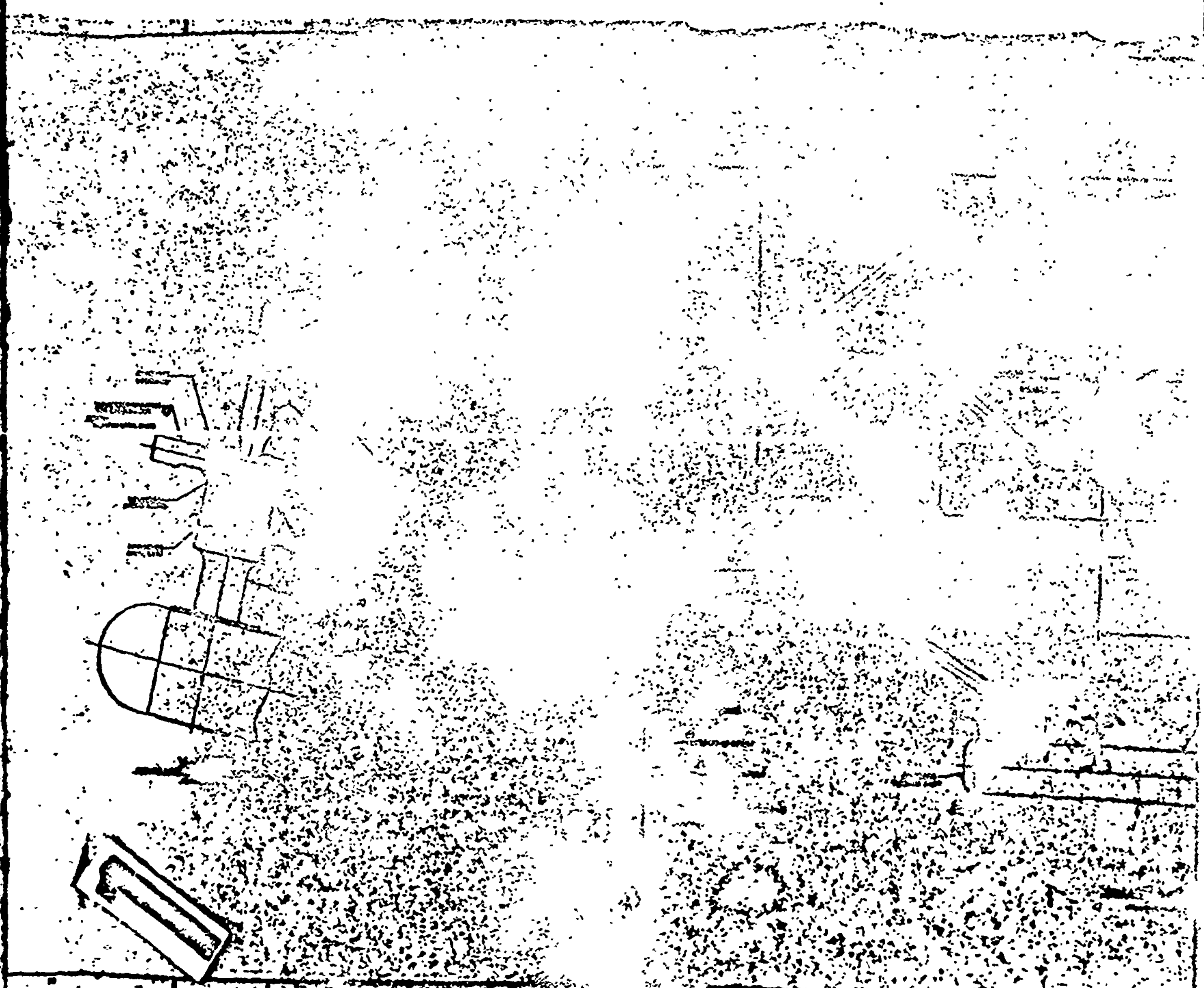
Convair
PRELIMINARY DESIGN DRAWING

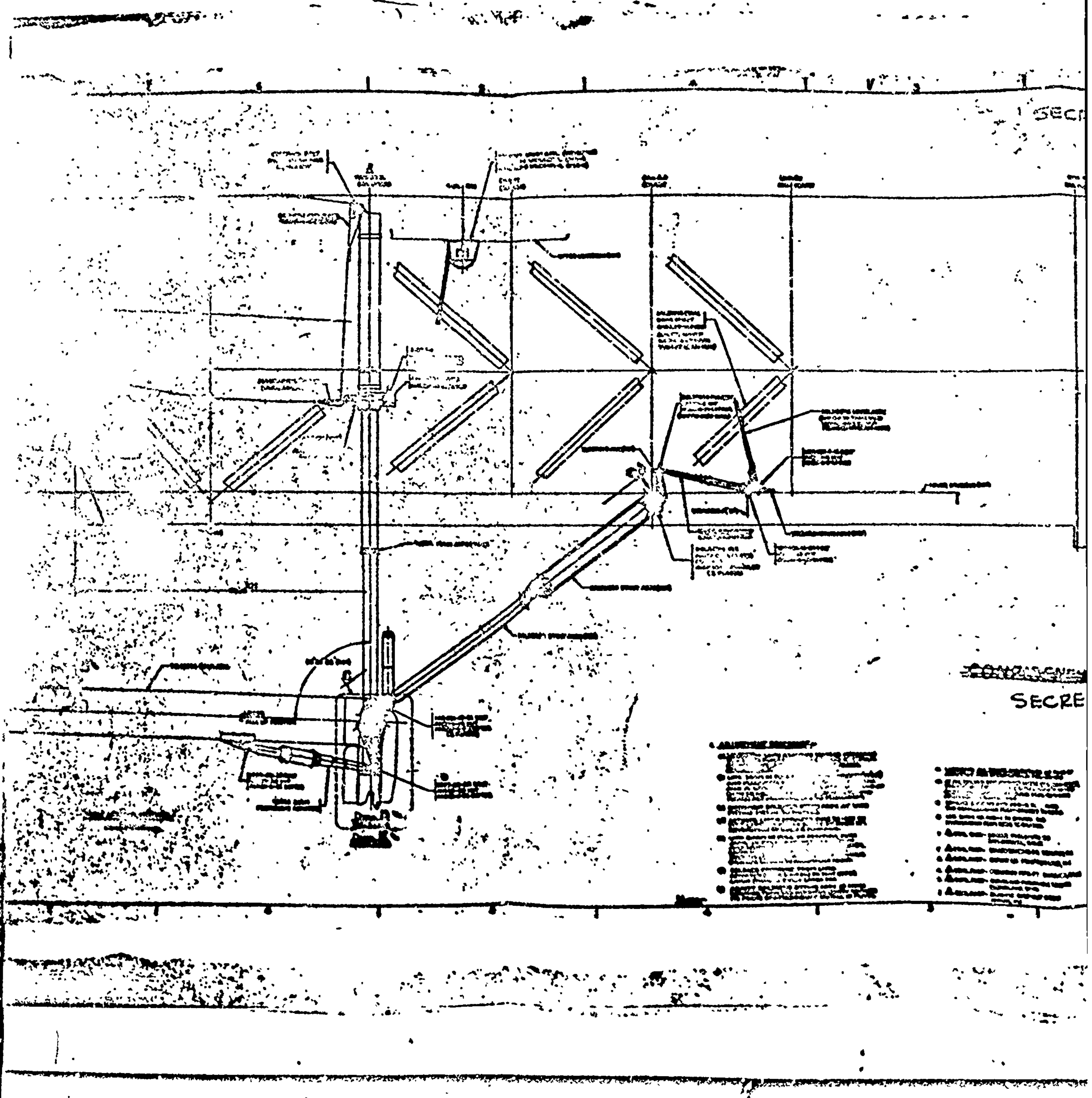
LAYOUT-WING ORDINATES AND LOWER SURFACE CLEARANCE

CONSOLIDATED VULTEE AIRCRAFT CORPORATION FORT WORTH DIVISION, FORT WORTH, TEXAS

FW-5410002



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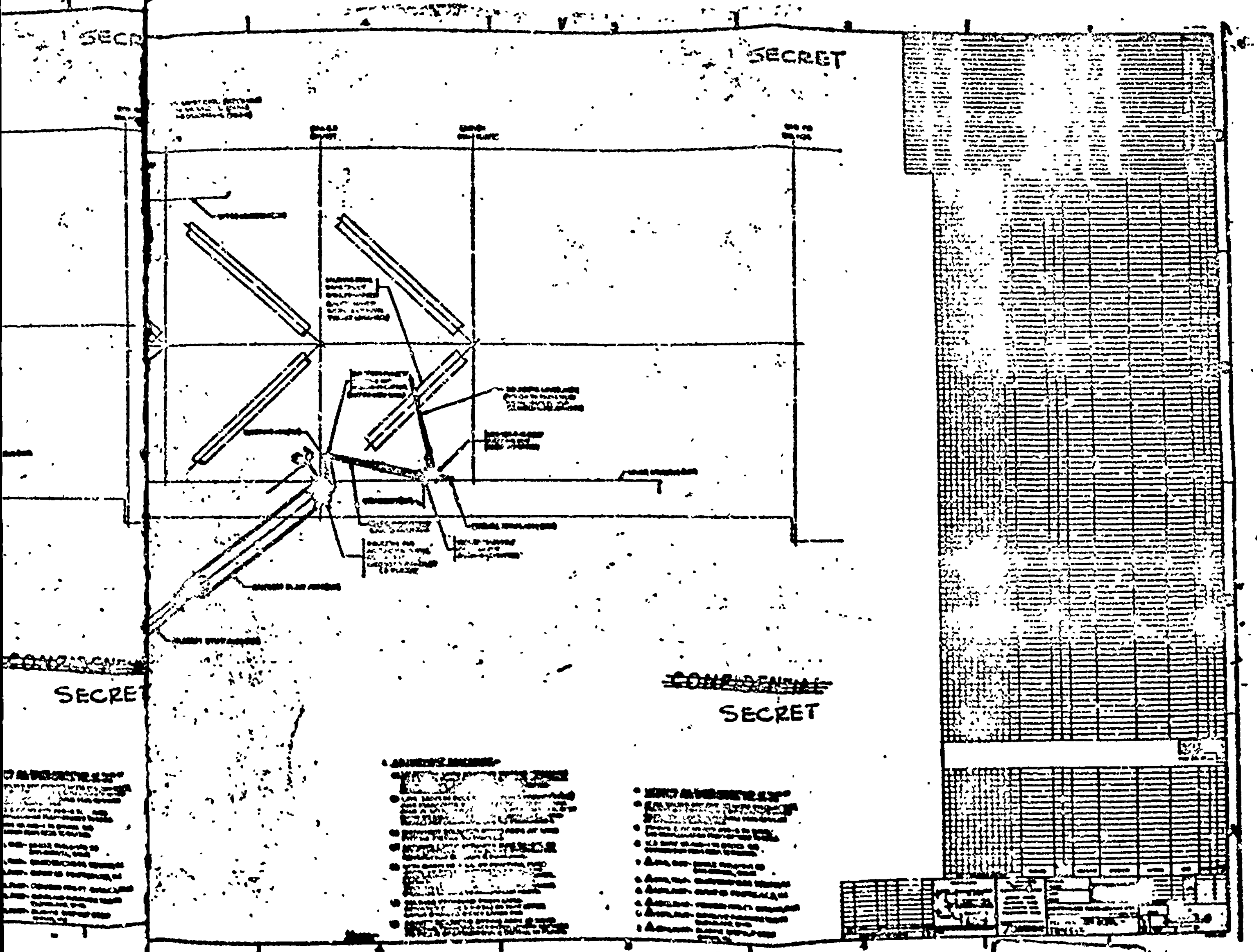
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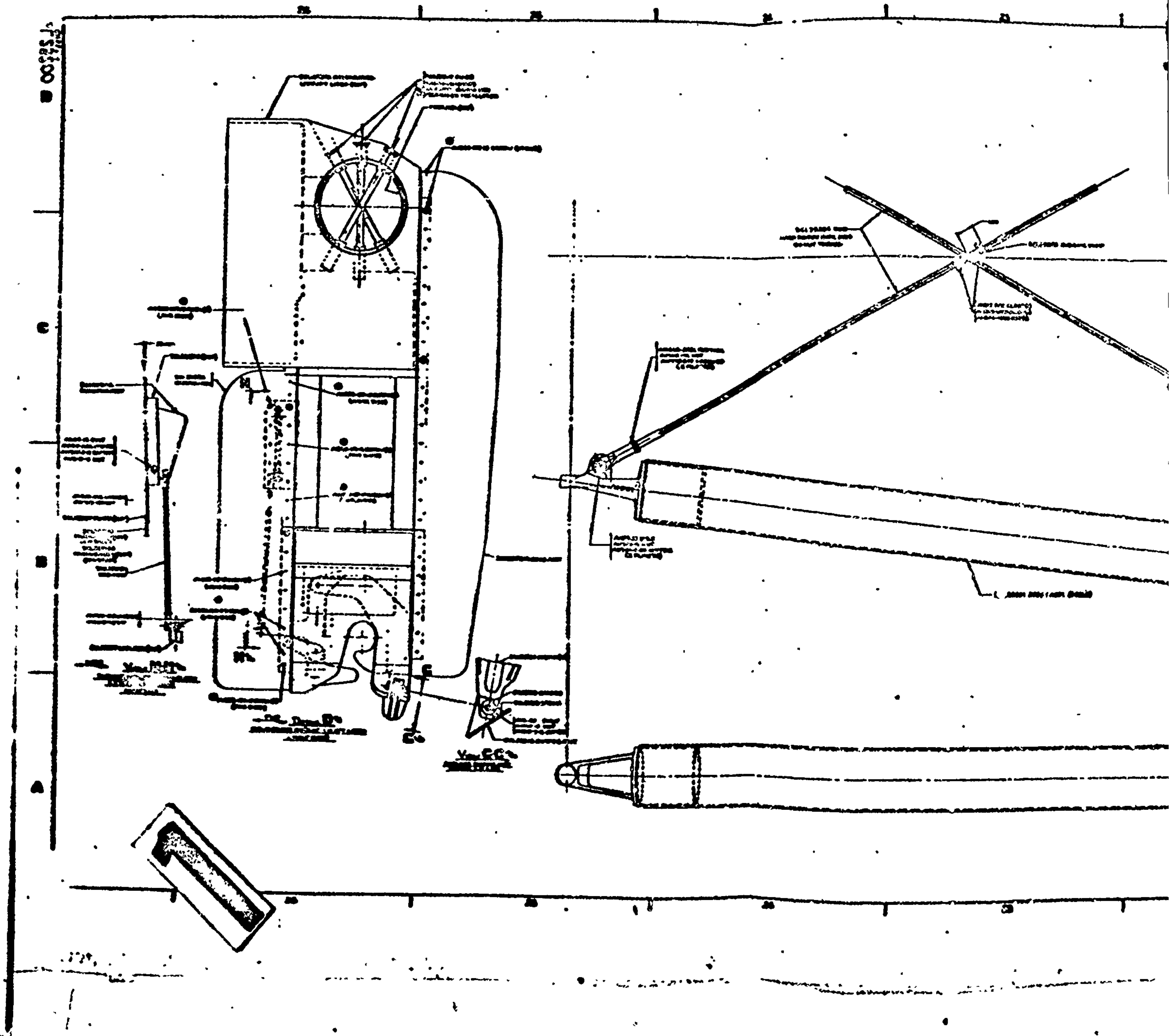
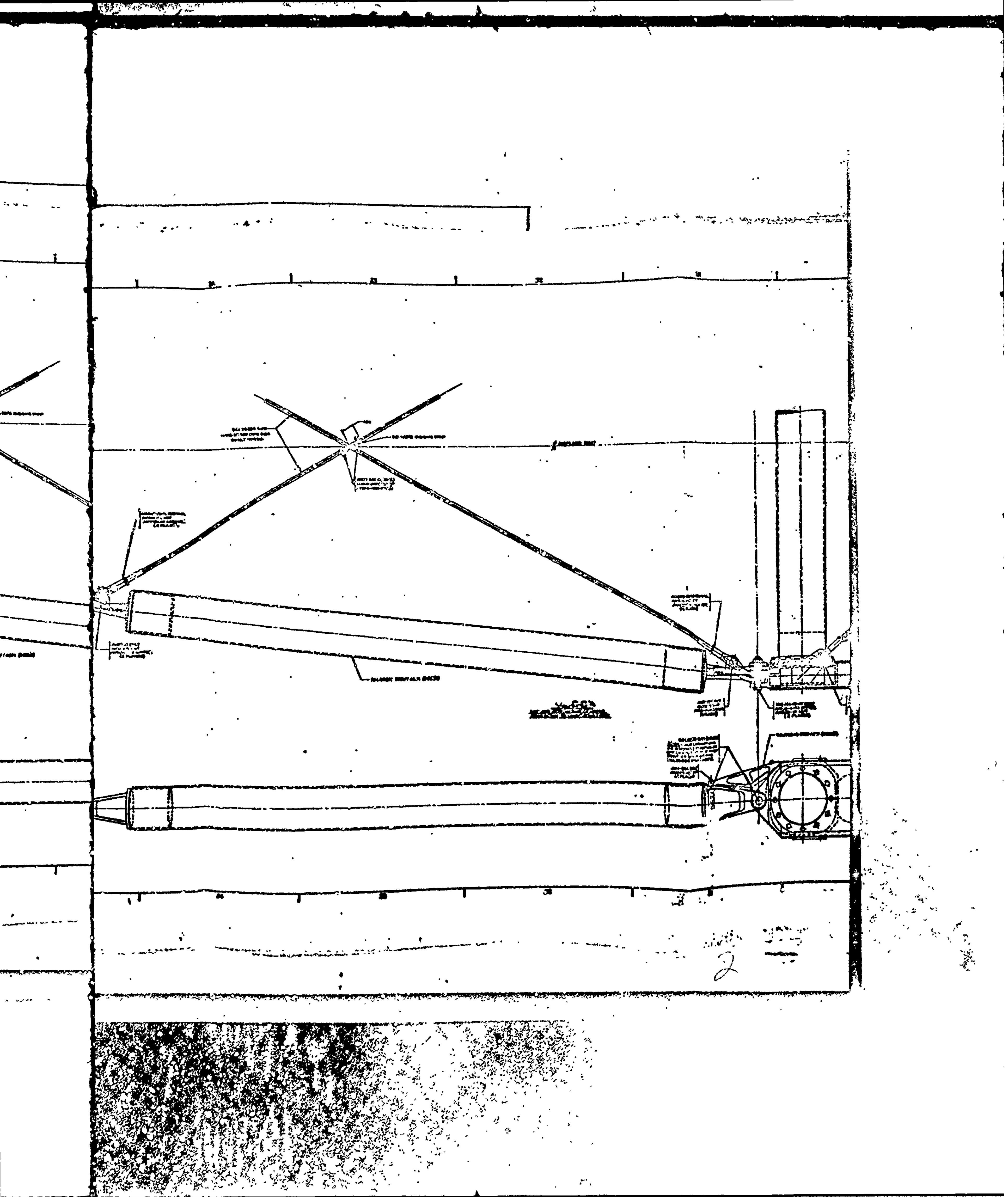
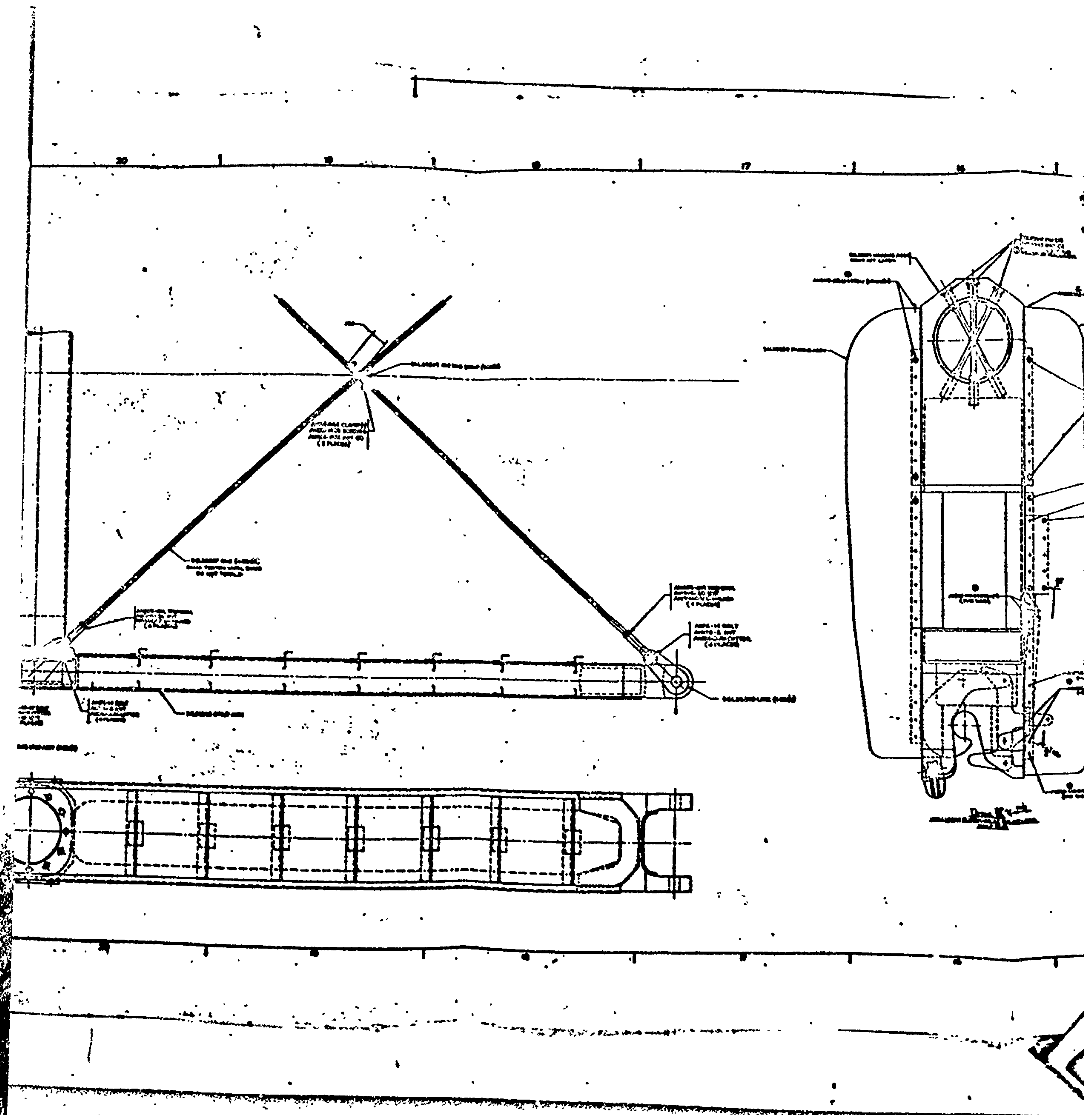
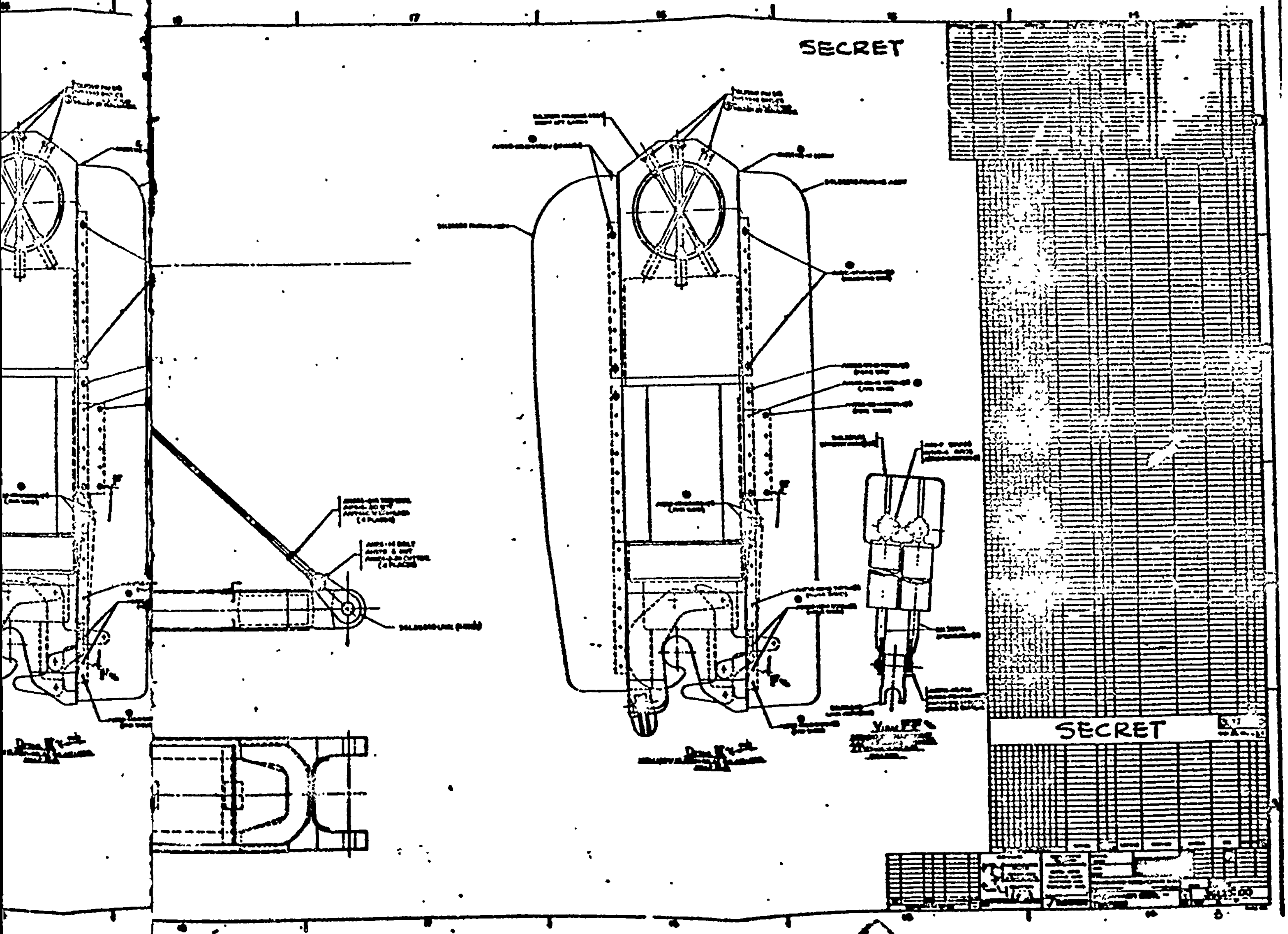
SECRET
~~CONFIDENTIAL~~
SECRET





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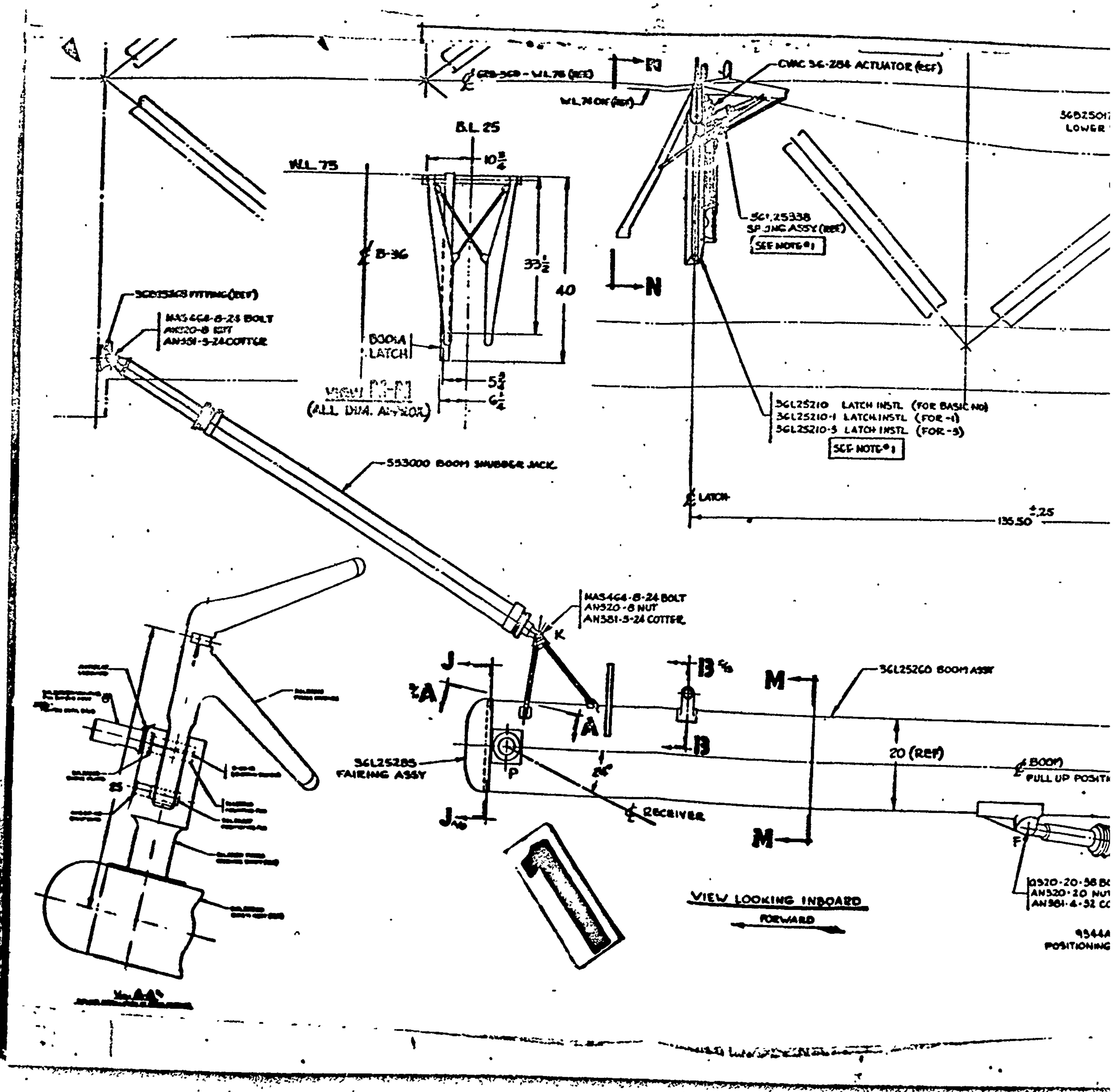
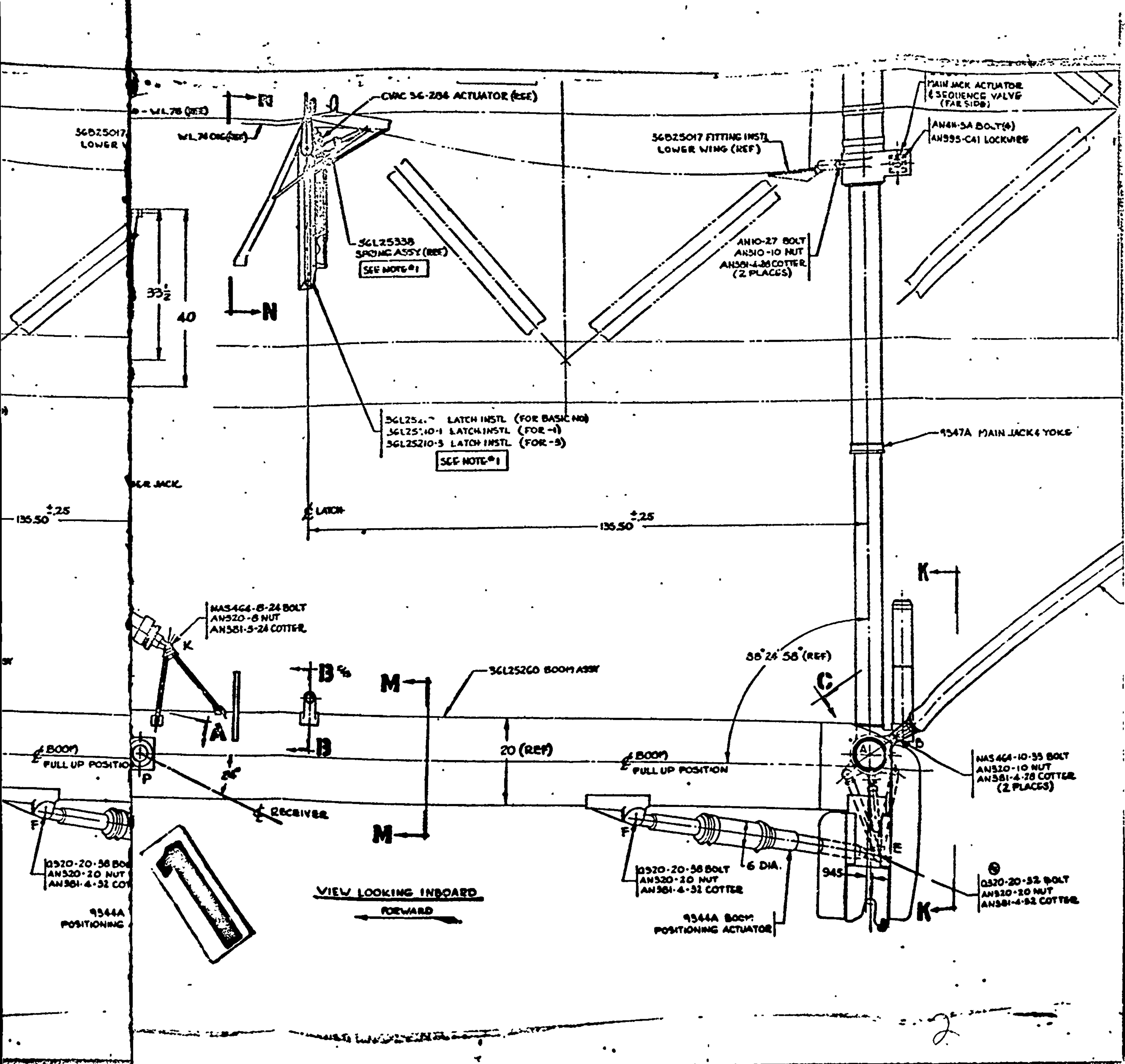
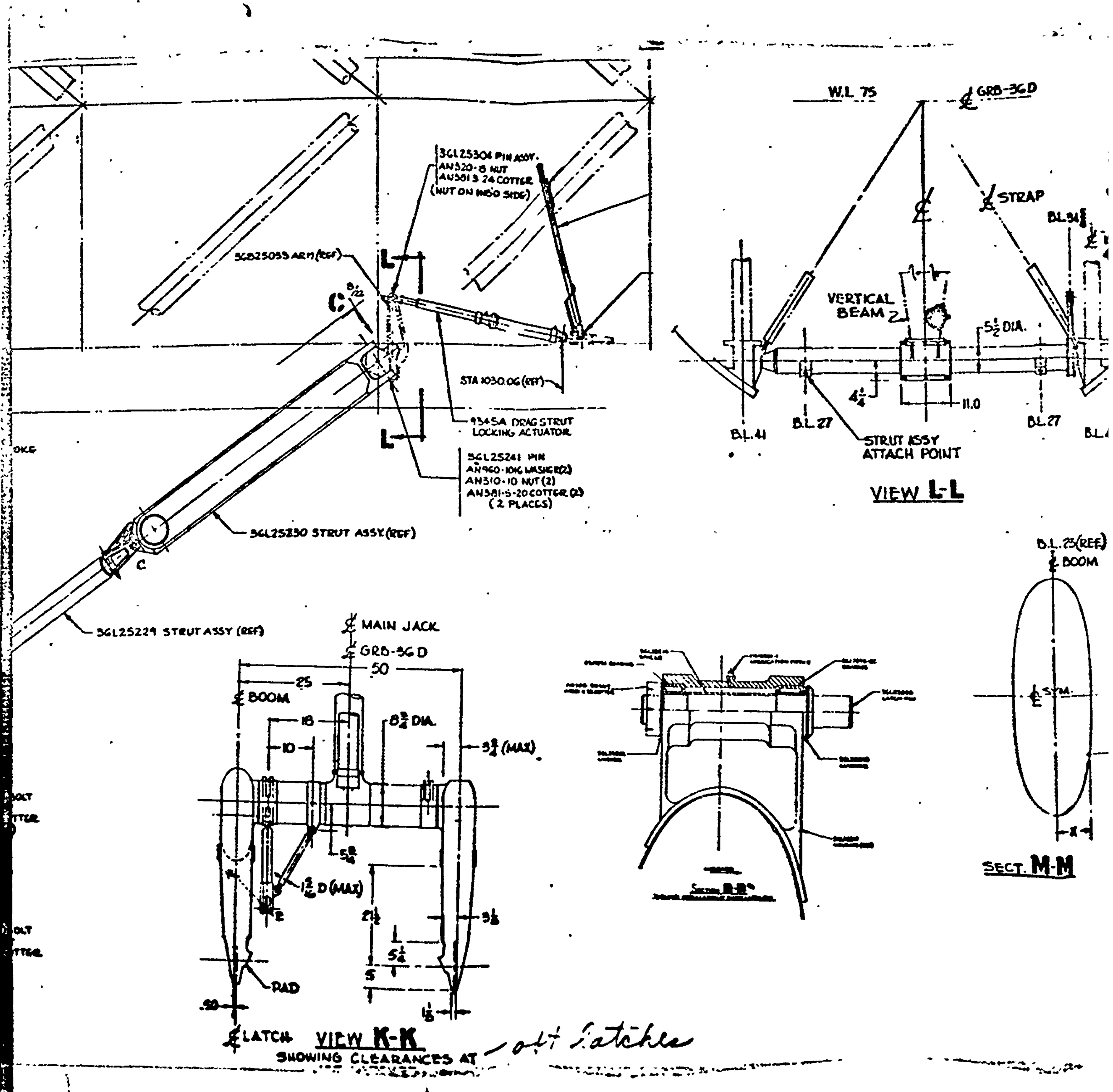


CVAC 56-284 ACTUATOR (REF)
W.L. 74 OR (REF)
B.L. 25
W.L. 75
$10\frac{3}{4}$
$33\frac{1}{2}$
40
BOOM LATCH
$5\frac{3}{4}$
$6\frac{1}{4}$
(ALL DIM. APPROX)
56L25338 SPRING ASSY (REF)
SEE NOTE 1
N
56L25210 LATCH INSTL (FOR BASIC NO)
56L25210-1 LATCH INSTL (FOR -1)
56L25210-5 LATCH INSTL (FOR -5)
SEE NOTE 1
LATCH
135.50 ±.25
MAS464-8-24 BOLT
AN320-8 NUT
AN381-5-24 COTTER
553000 BOOM SNUBBER JACK
MAS464-8-24 BOLT
AN320-8 NUT
AN381-5-24 COTTER
K
56L25260 BOOM ASSY
J
A
B
M
20 (REF)
BOOM
PULL UP POSIT
56L25285 FAIRING ASSY
P
RECEIVER
F
VIEW LOOKING INBOARD
FORWARD

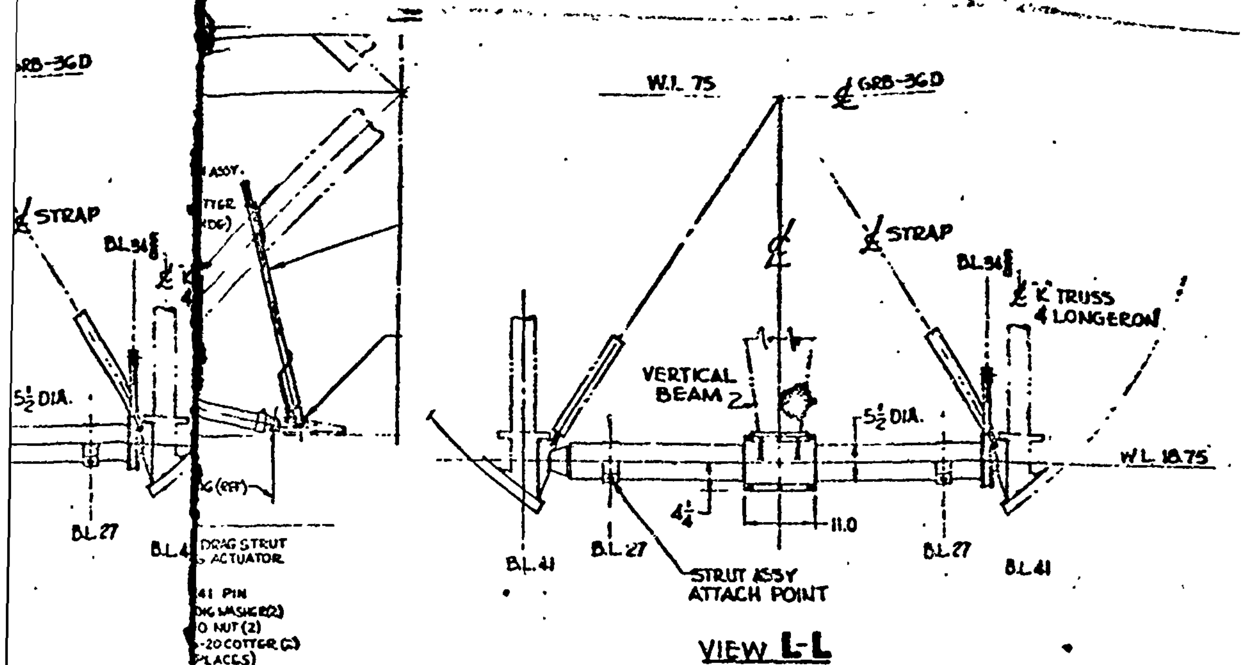


CVAC 56-284 ACTUATOR (REF)
WL 78 (REF)
WL 74 ORG (REF)
36B25017 LOWER W
36L25338 SPRING ASSY (REF)
SEE NOTE #1
36B25017 FITTING INSTL LOWER WING (REF)
MAIN JACK ACTUATOR & SEQUENCE VALVE (FAR SIDE)
AN4H-5A BOLT (4)
AN995-C41 LOCKWIRE
AN10-27 BOLT
AN310-10 NUT
AN381-4-28 COTTER (2 PLACES)
33½
40
N
36L25210-1 LATCH INSTL (FOR BASIC NO)
36L25210-1 LATCH INSTL (FOR -1)
36L25210-3 LATCH INSTL (FOR -3)
SEE NOTE #1
9547A MAIN JACK & YOKE
135.50 ±.25
℄ LATCH
135.50 ±.25
K
NAS464-8-24 BOLT
AN320-8 NUT
AN381-3-24 COTTER
36L25260 BOOM ASSY
88°24'58" (REF)
B
M
C
A
20 (REF)
℄ BOOM PULL UP POSITION
℄ BOOM PULL UP POSITION
P
℄ RECEIVER
NAS464-10-35 BOLT
AN320-10 NUT
AN381-4-28 COTTER (2 PLACES)
F
6 DIA.
945
E
Q520-20-38 BOLT
AN320-20 NUT
AN381-4-32 COTTER
Q520-20-32 BOLT
AN320-20 NUT
AN381-4-32 COTTER
9344A BOOM POSITIONING ACTUATOR
VIEW LOOKING INBOARD
FORWARD

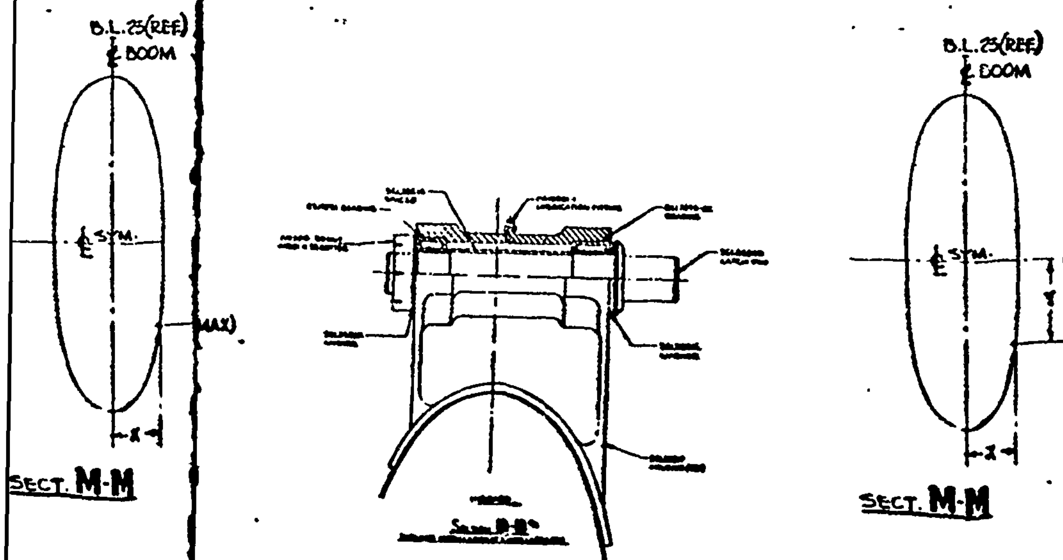


3GL25304 PIN ASSY.
AN320-8 NUT
AN381-3-24 COTTER
(NUT ON INBD SIDE)
3GB25033 ARM (REF)
STA 1030.06 (REF)
9345A DRAG STRUT LOCKING ACTUATOR
3GL25241 PIN
AN960-1016 WASHER (2)
AN310-10 NUT (2)
AN381-5-20 COTTER (2)
(2 PLACES)
3GL25230 STRUT ASSY (REF)
3GL25229 STRUT ASSY (REF)
W.L. 75
℄ GRB-36D
℄ STRAP
VERTICAL BEAM
$5\frac{1}{2}$ DIA.
11.0
B.L. 41
B.L. 27
B.L. 27
STRUT ASSY ATTACH POINT
VIEW L-L
B.L. 23 (REF)
℄ BOOM
℄ SYM.
SECT. M-M
℄ MAIN JACK
℄ GRB-36D
50
25
℄ BOOM
18
10
$8\frac{3}{4}$ DIA.
$5\frac{3}{4}$ (MAX)
$1\frac{3}{16}$ D (MAX)
$21\frac{1}{2}$
$5\frac{1}{4}$
5
PAD
.50
℄ LATCH
VIEW K-K
SHOWING CLEARANCES AT

PAGE A-10
FZA 36-325



VIEW L-L



BOOM ORDINATES	
"Y" DISTANCE	"X" DISTANCE
0 (℄)	4.000
1.0	4.000
2.0	3.990
3.0	3.965
4.0	3.900
5.0	3.785
6.0	3.600
7.0	3.305
8.0	2.850
8.5	2.535
9.0	2.110
9.5	1.505
9.815	.950
10.0	0

2

ott latches

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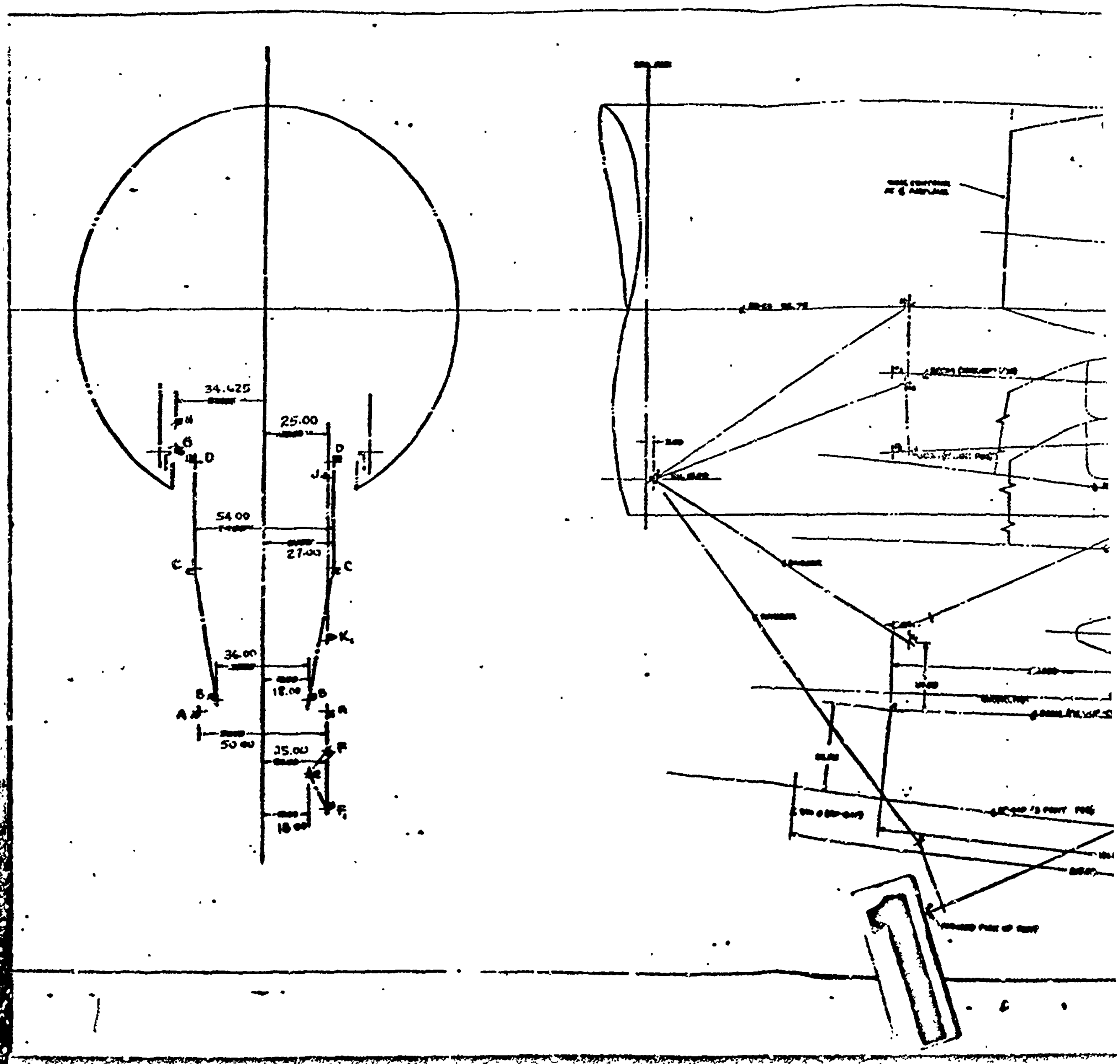
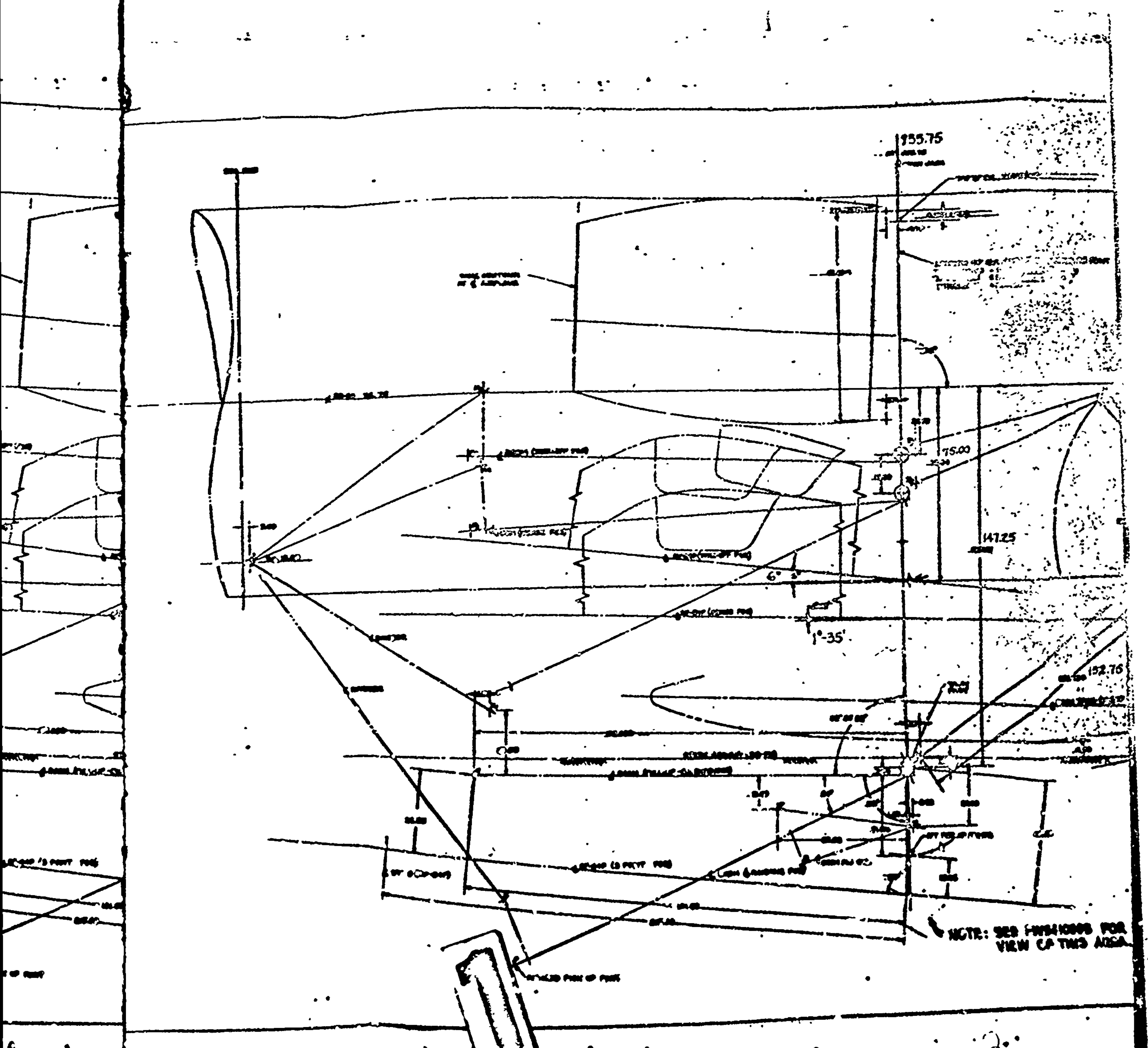
PRELIMINARY DESIGN DRAWING

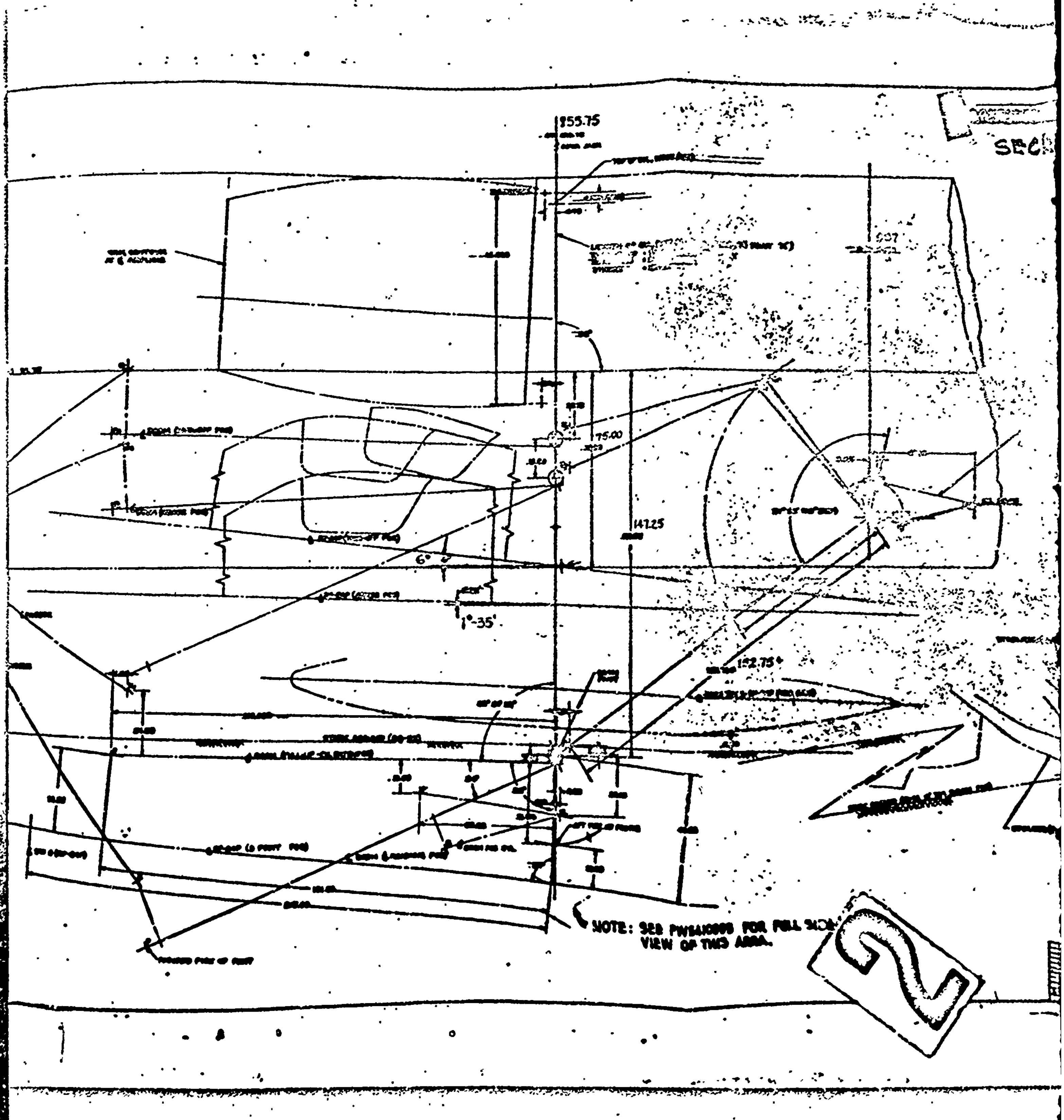
LAYOUT-CLEARANCE DIMENSIONS
FOR TRAPEZE & PARASITE

FW-5410003


34.425
25.00
54.00
27.00
36.00
18.00
50.00
25.00
18.00
1

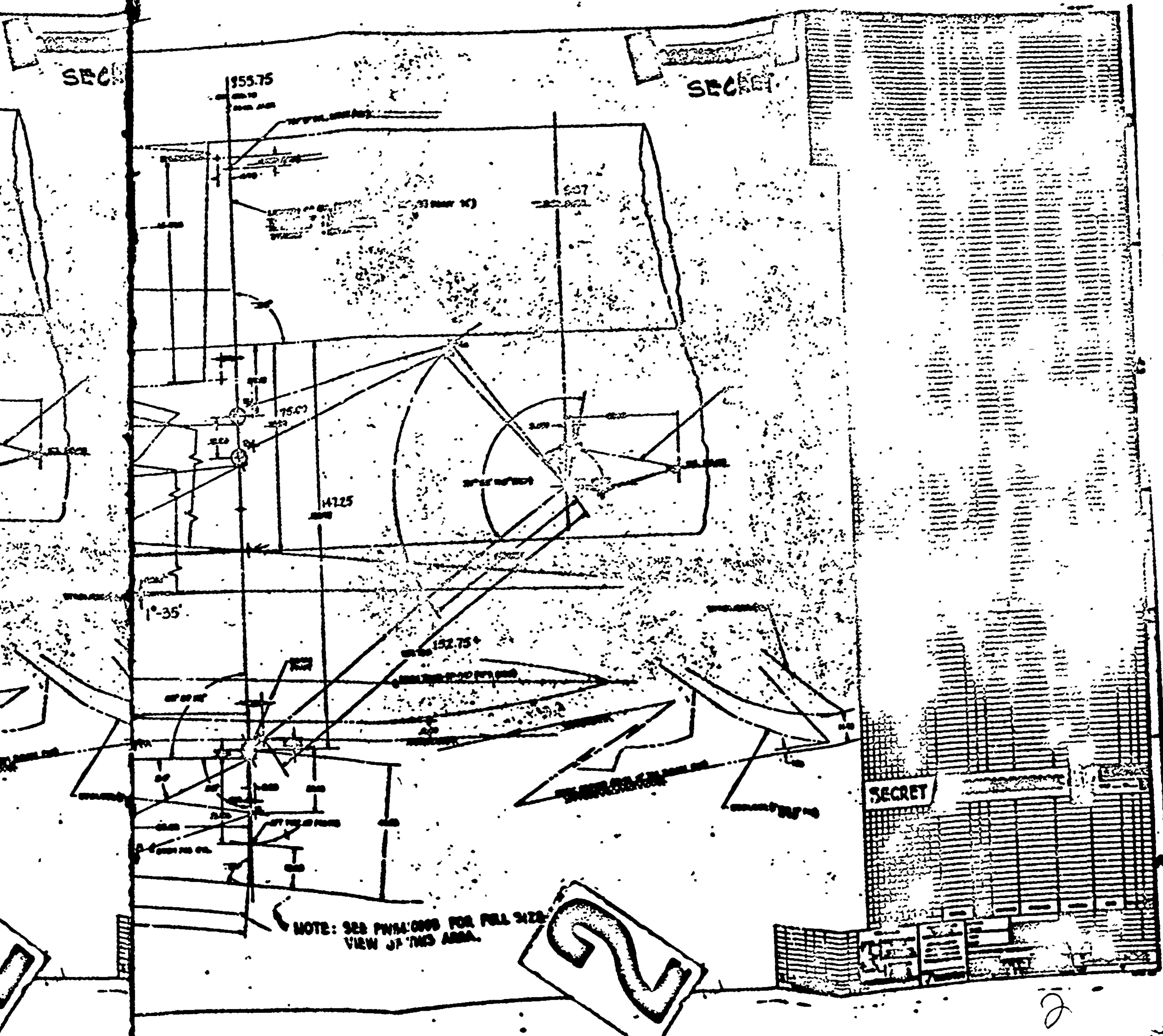


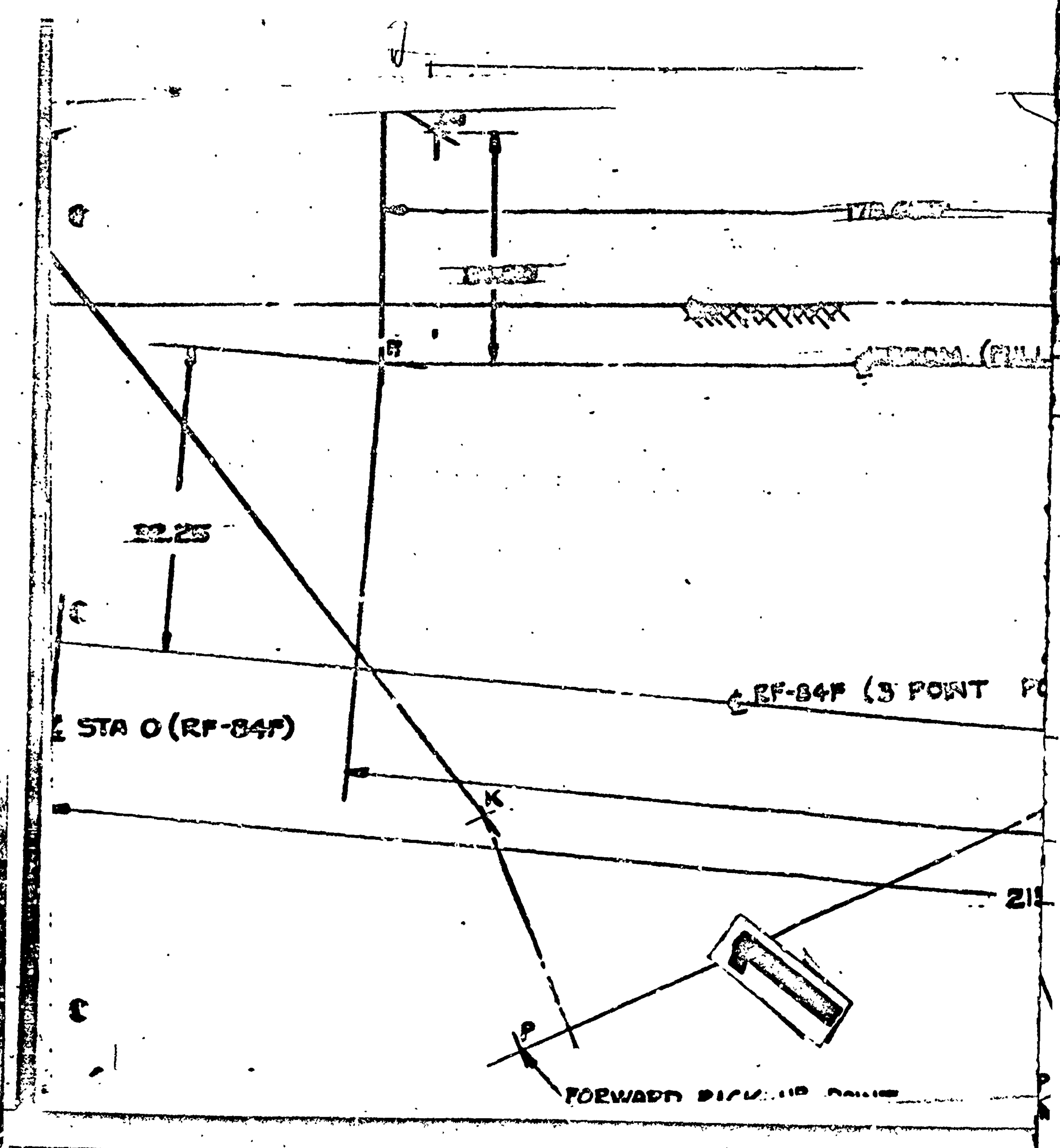
155.75
75.00
147.25
152.75
6°
1°-35'
NOTE: SEE F-W5410005 FOR VIEW OF THIS AREA.



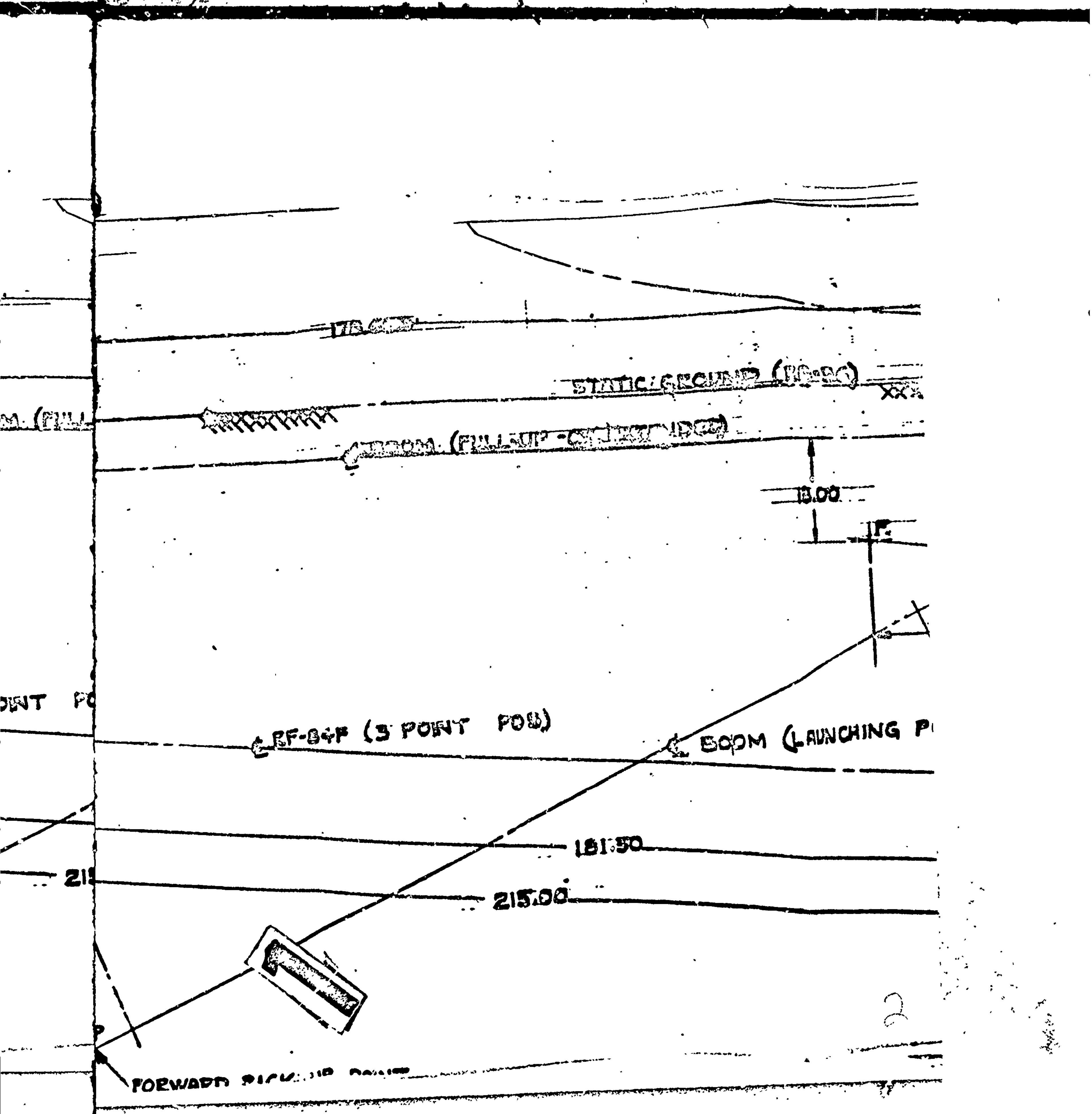
255.75
75.00
147.25
152.75
6°
1°-35'

PAGE A-11
FZA-36-325

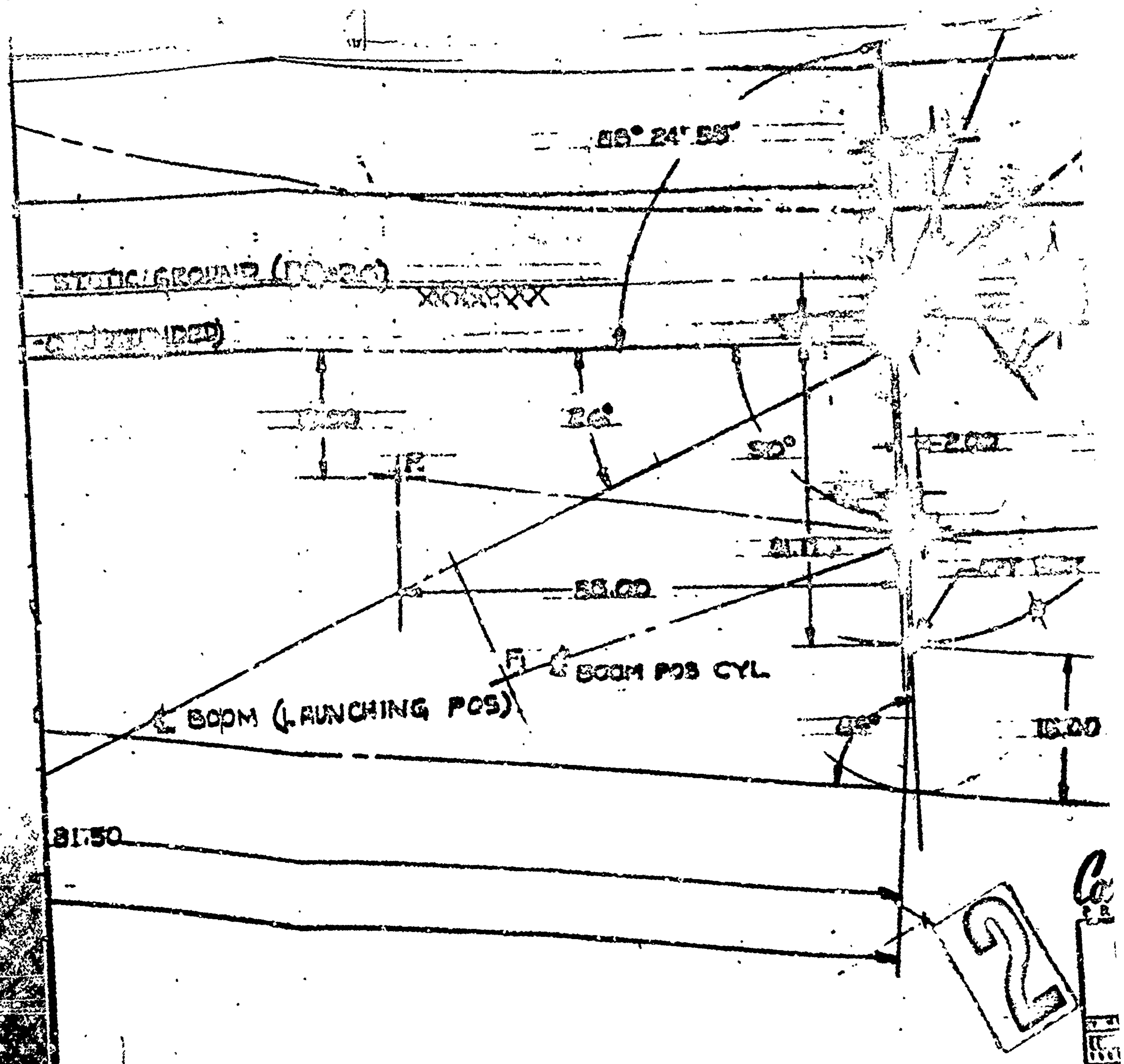


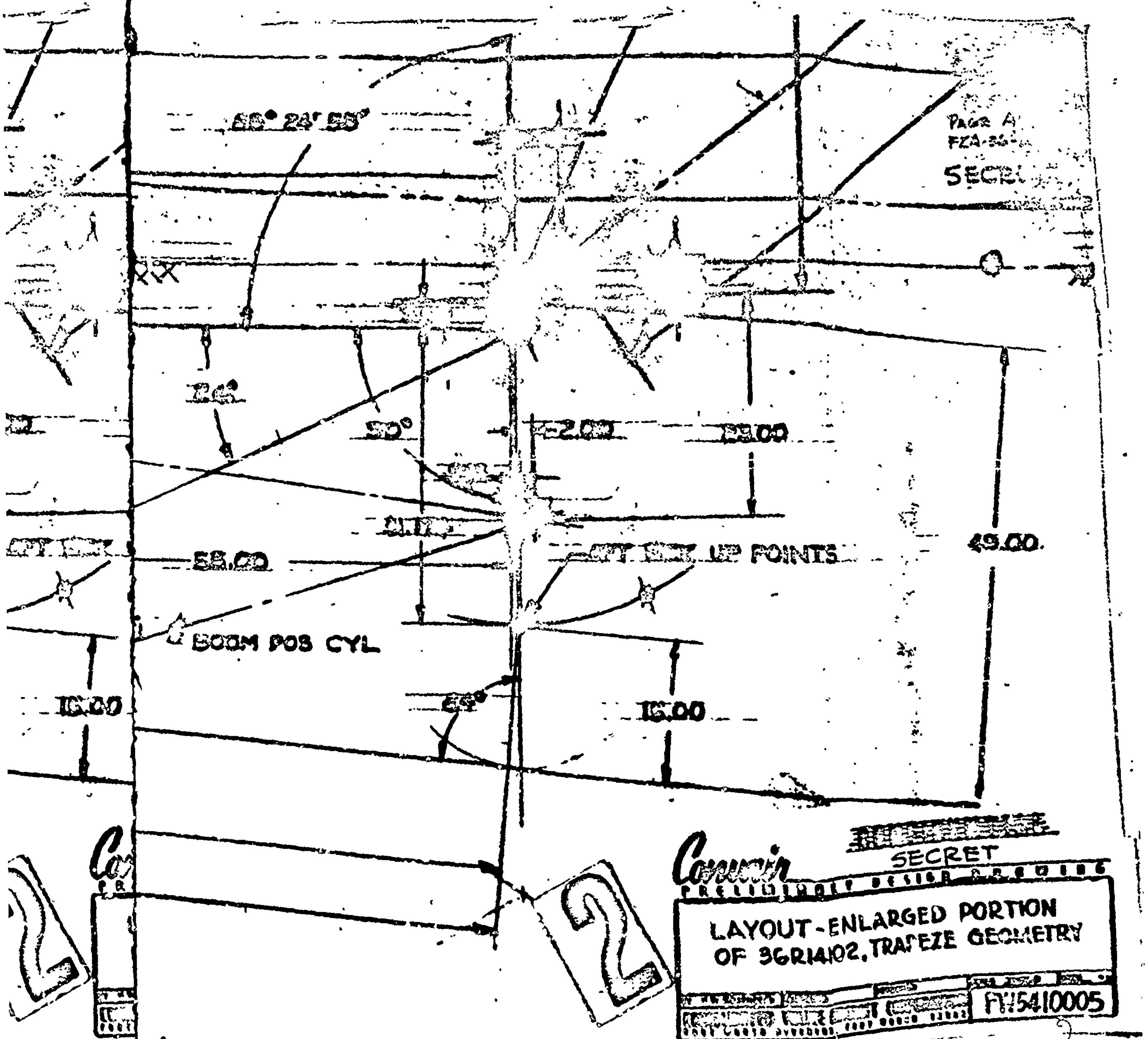


B
32.25
K
P
STA 0 (RF-84F)
RF-84F (3 POINT
FORWARD PICK-UP POINT



RF-84F (3 POINT POS)
BOOM (LAUNCHING P
13.00
181.50
215.00
2

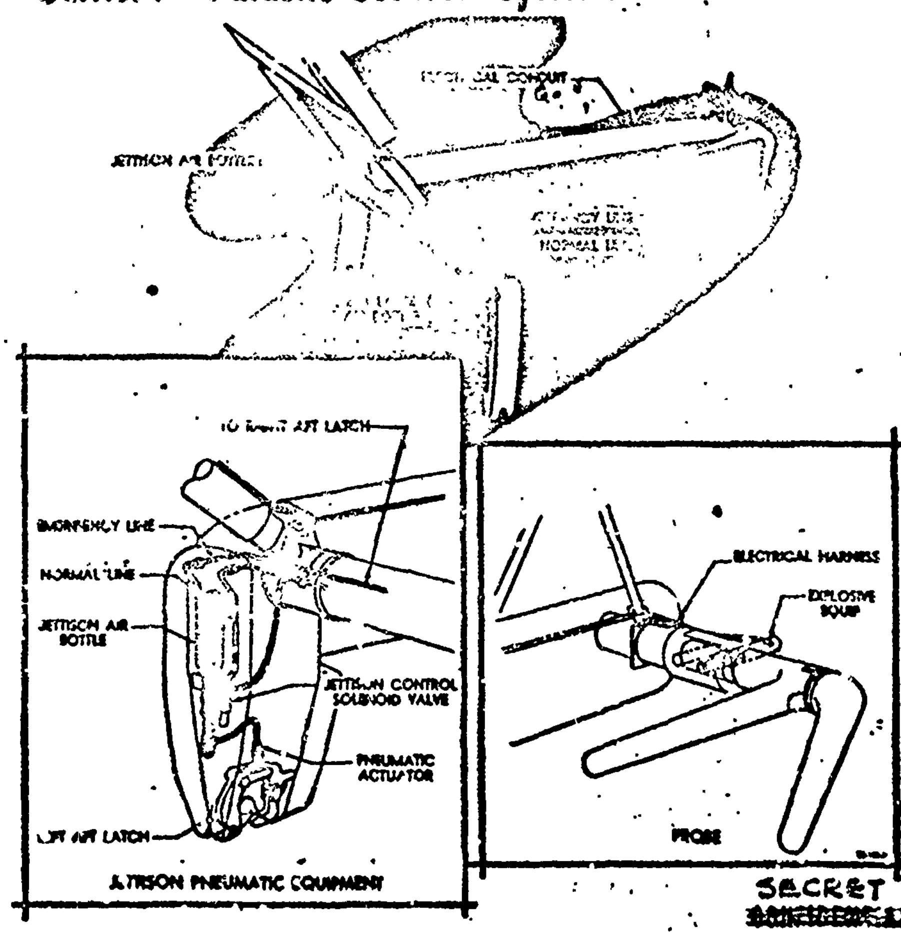

88° 24' 55"
℄ BOOM POS CYL.
℄ BOOM (LAUNCHING POS)
58.00
81.50
16.00
50°
2



SECRET
29.00
58.00
UP POINTS
49.00
BOOM POS CYL
16.00
16.00
Convair
SECRET
LAYOUT-ENLARGED PORTION
OF 36R14102, TRAPEZE GEOMETRY
FW5410005

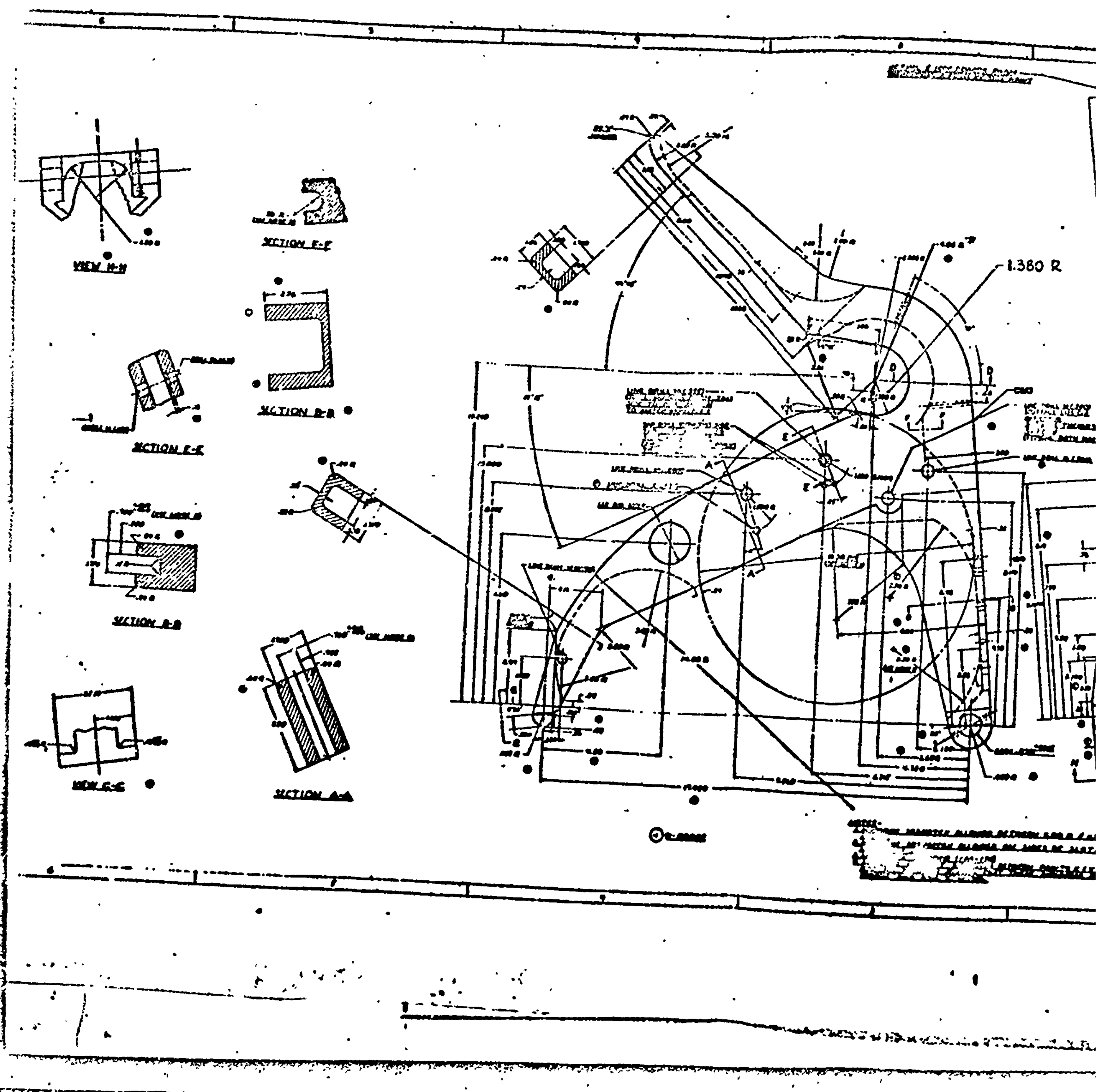
SECRET

Carrier's Parasite Jettison System

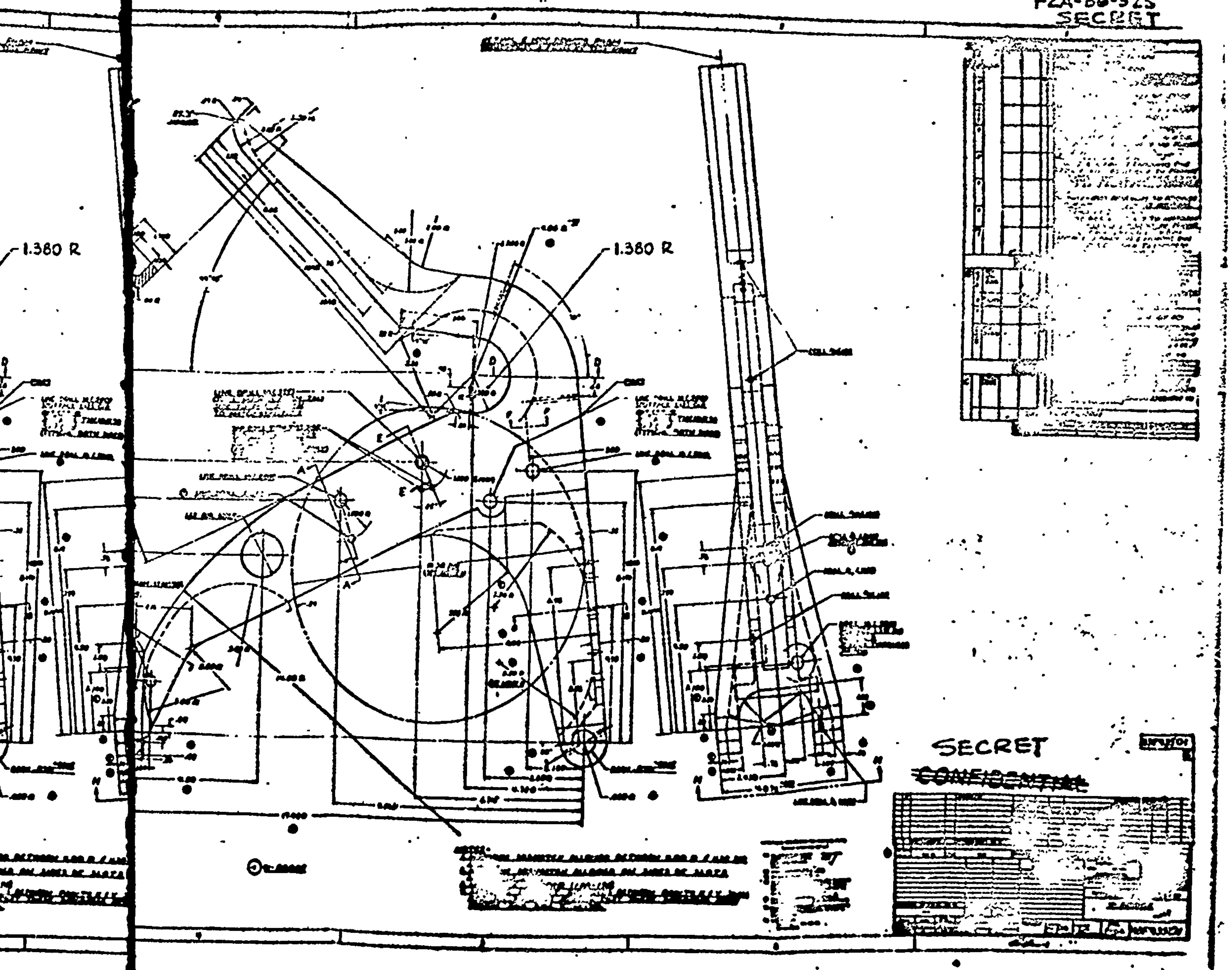


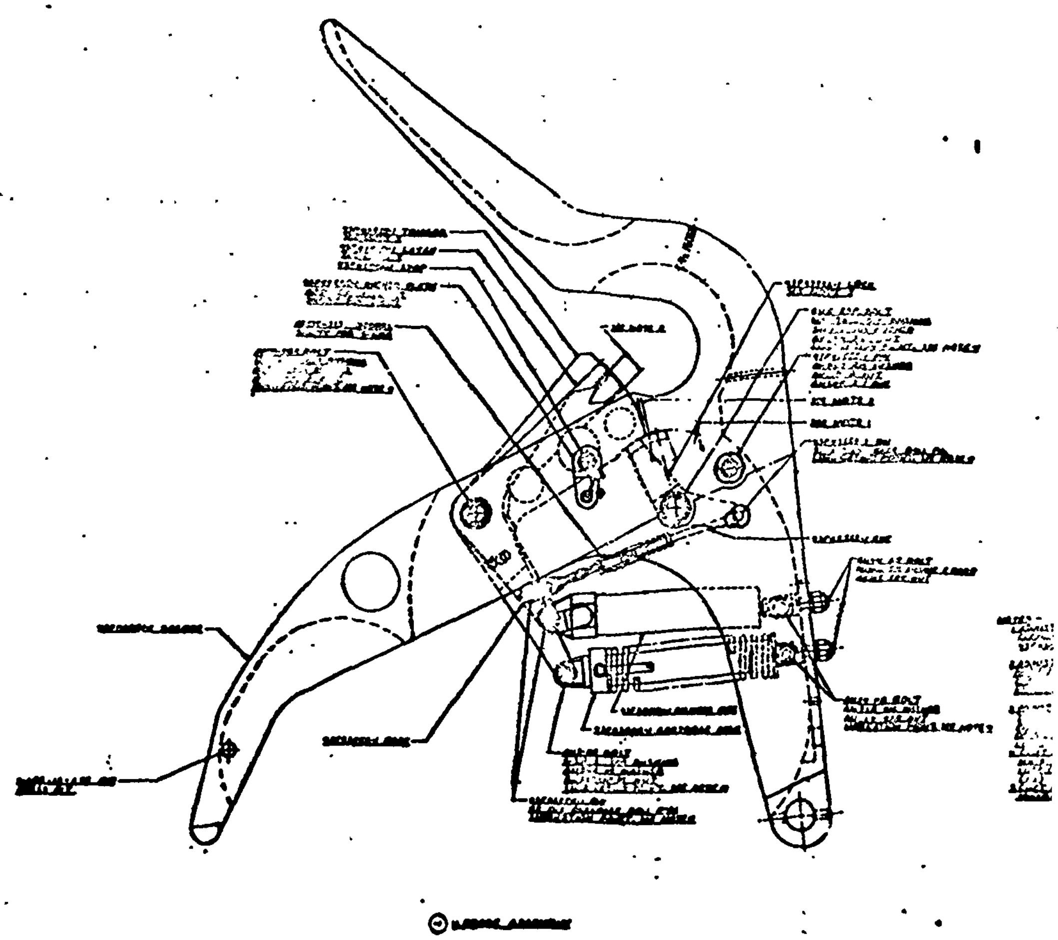
SECRET

PLATE 3


1.380 R

Page A-14
FZA-36-325
SECRET





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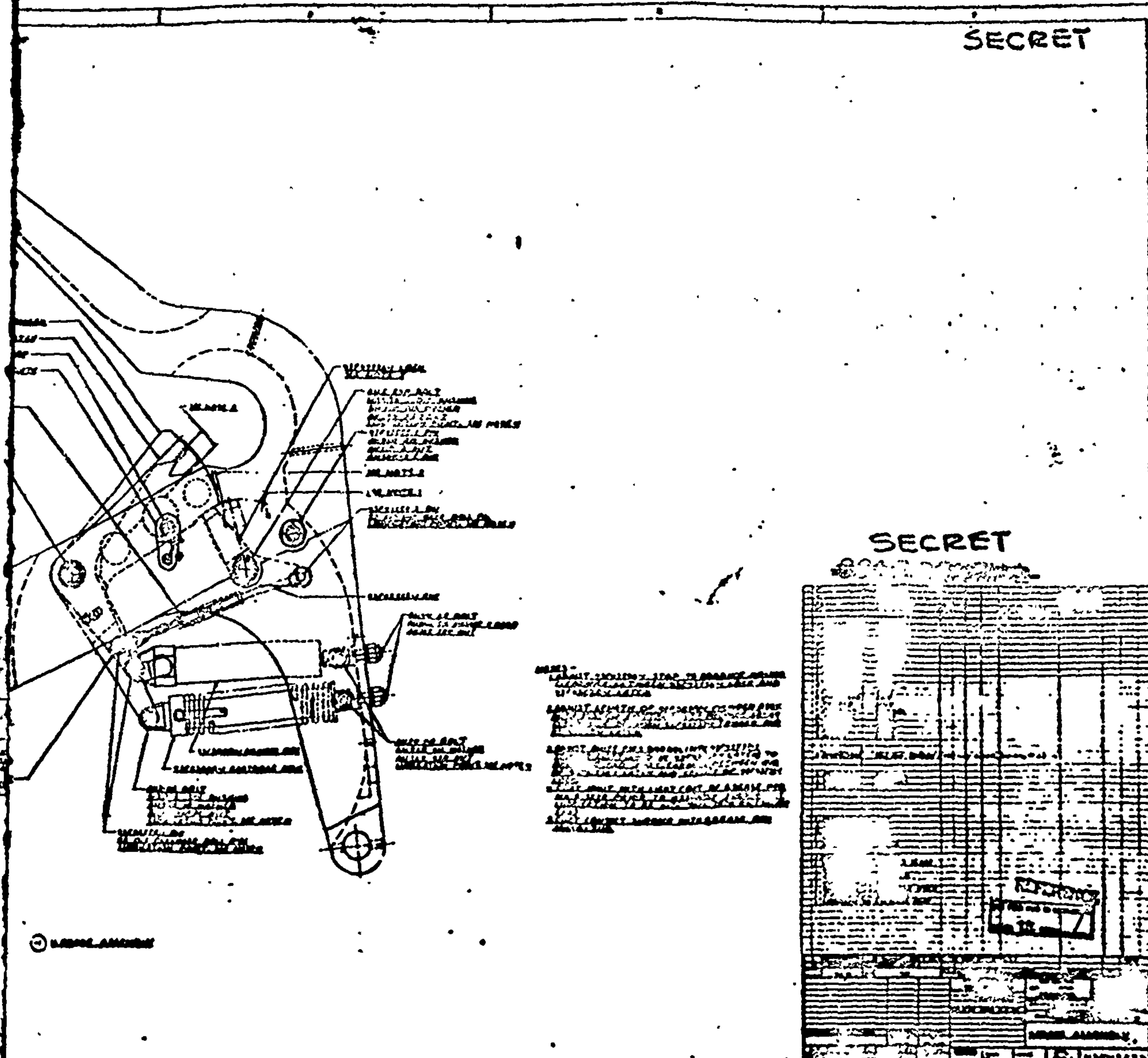

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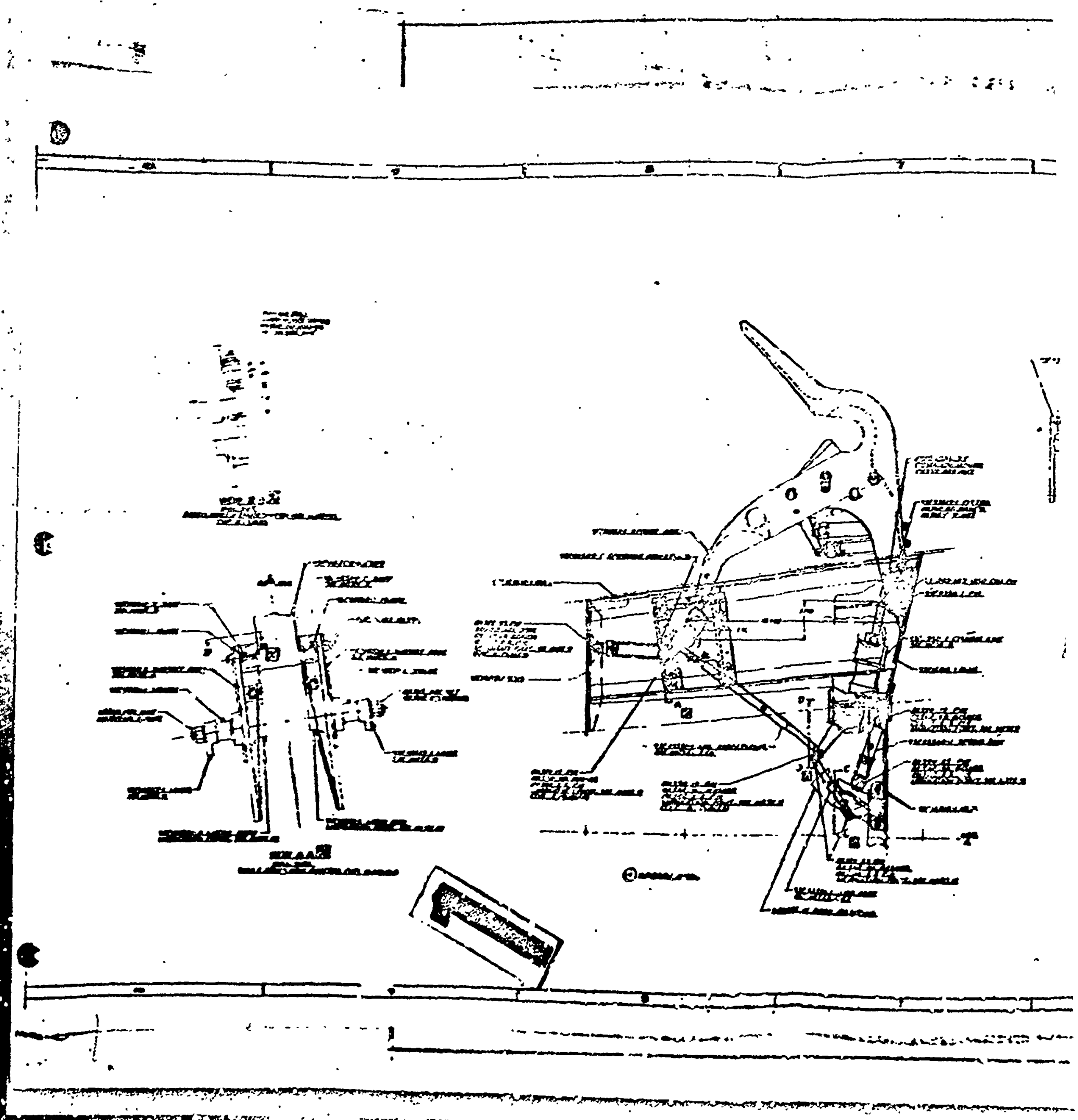

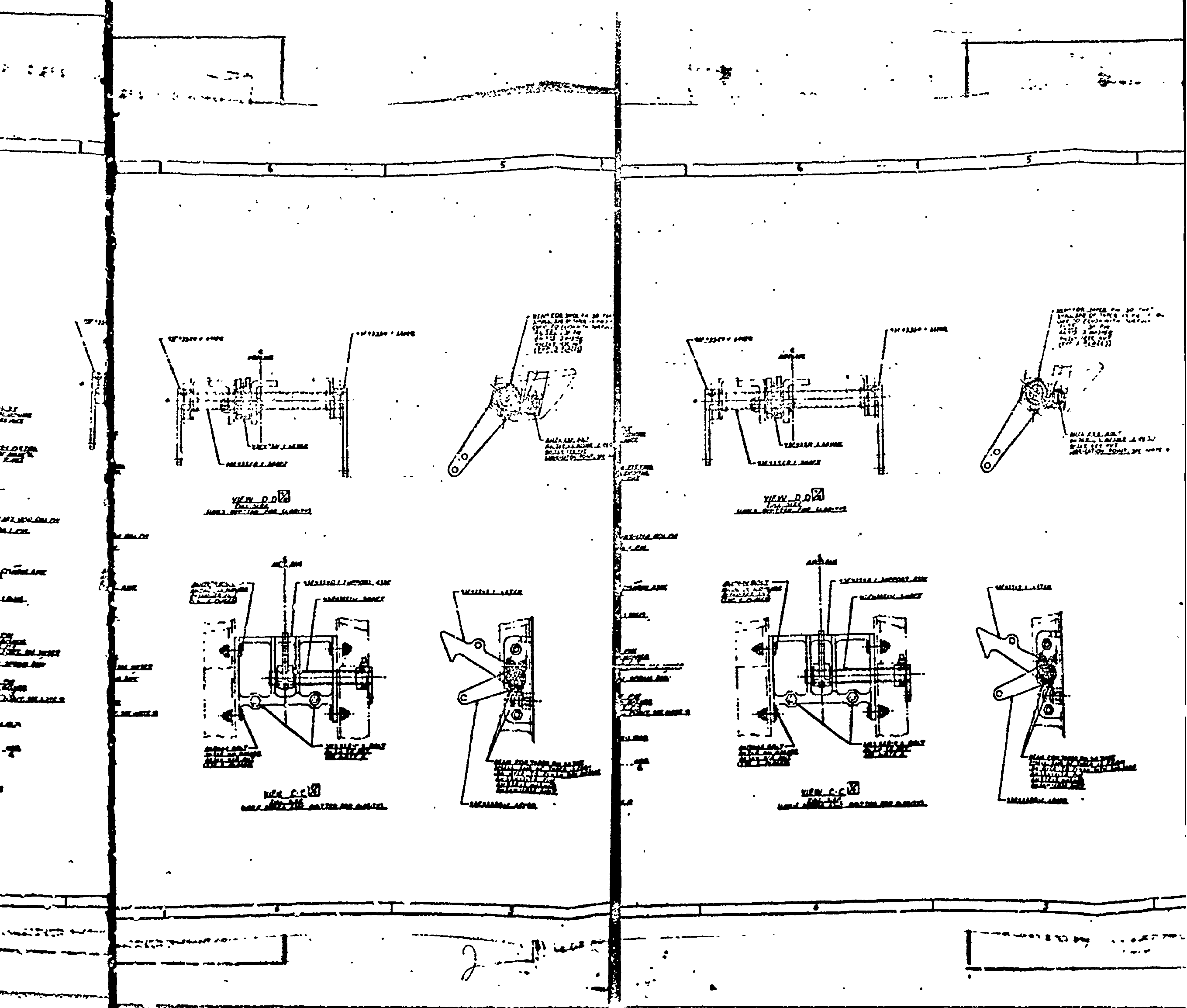
VIEW D-D
VIEW C-C

PAGE A-16
F2A-36-325

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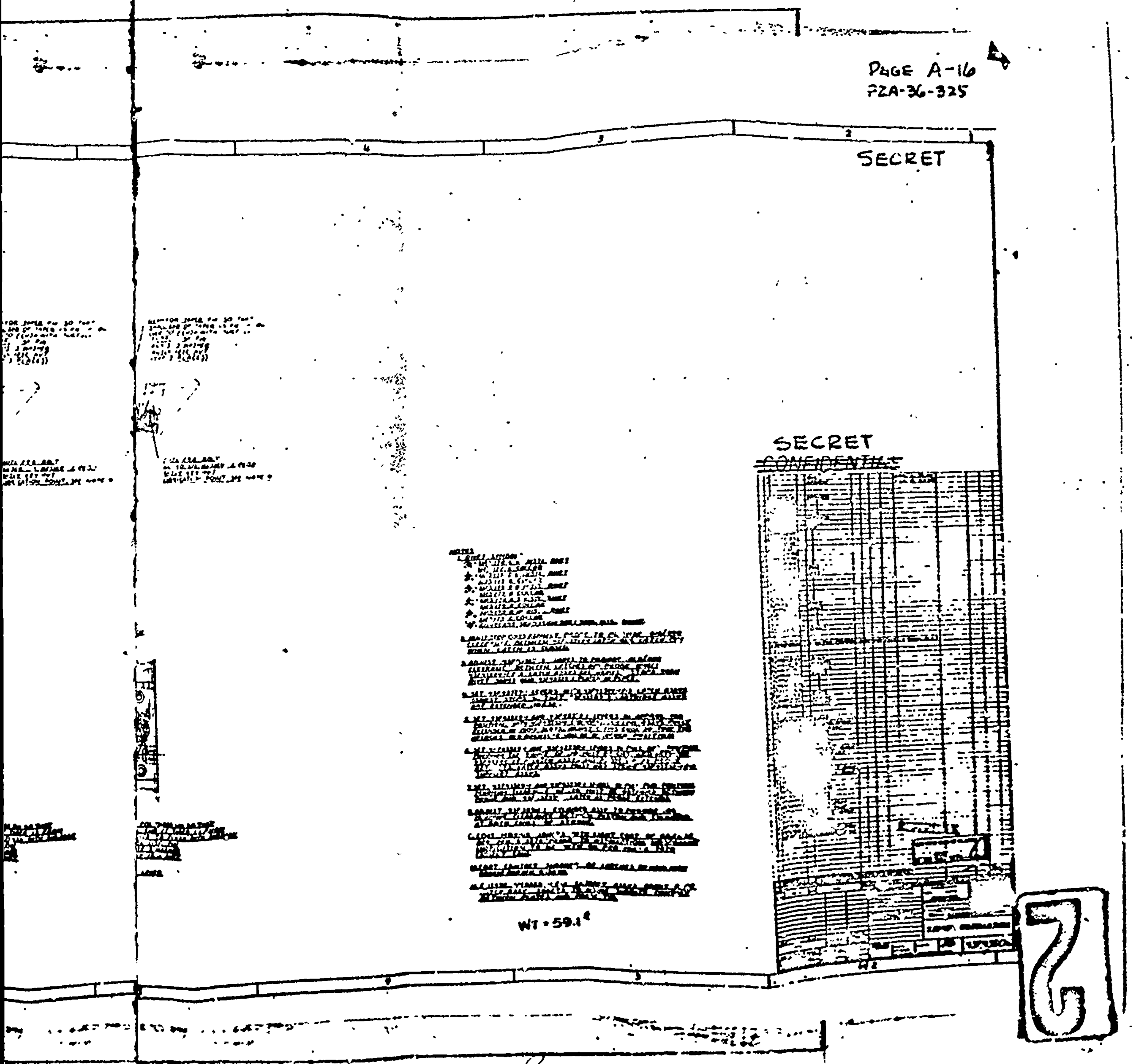

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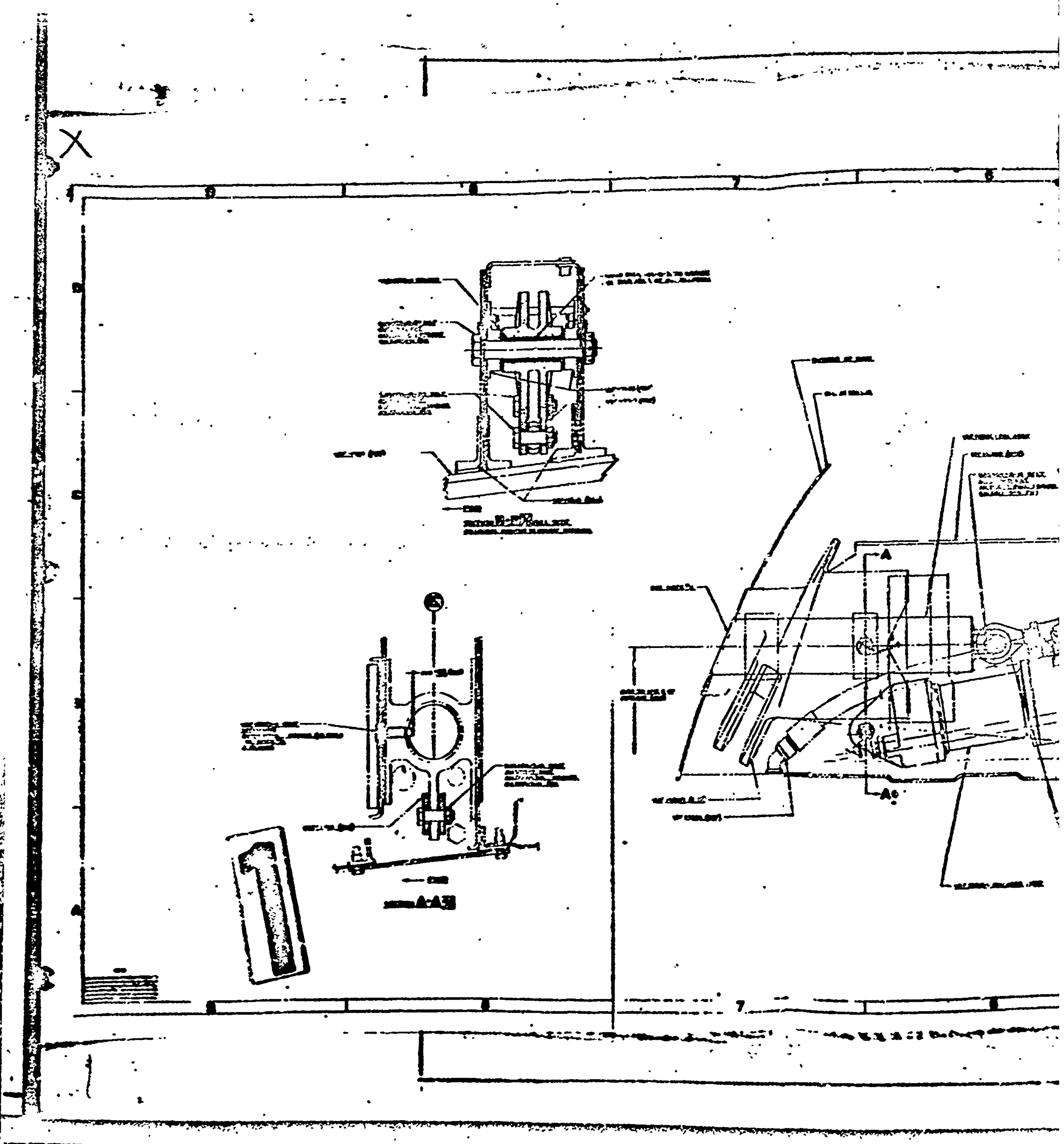

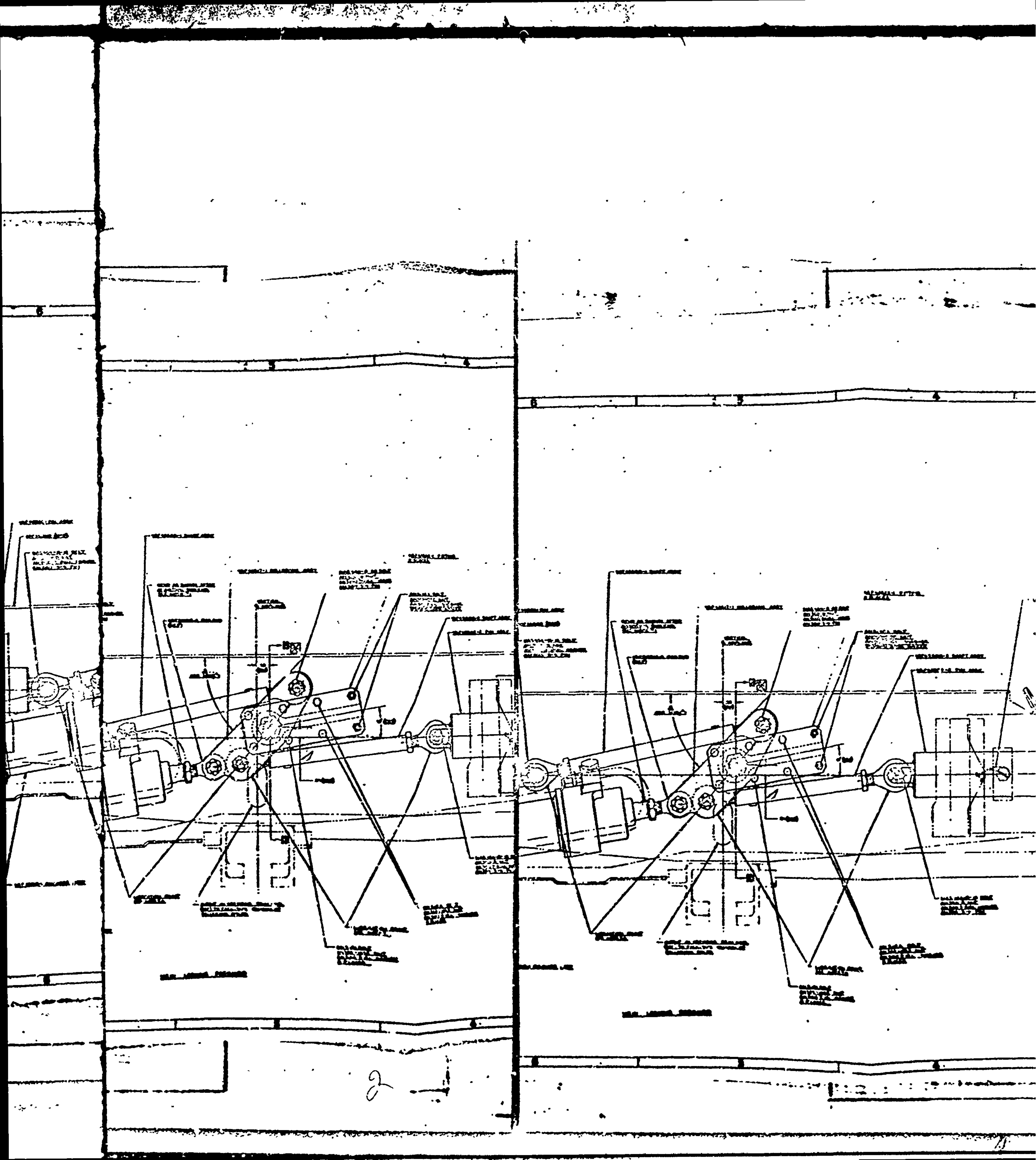

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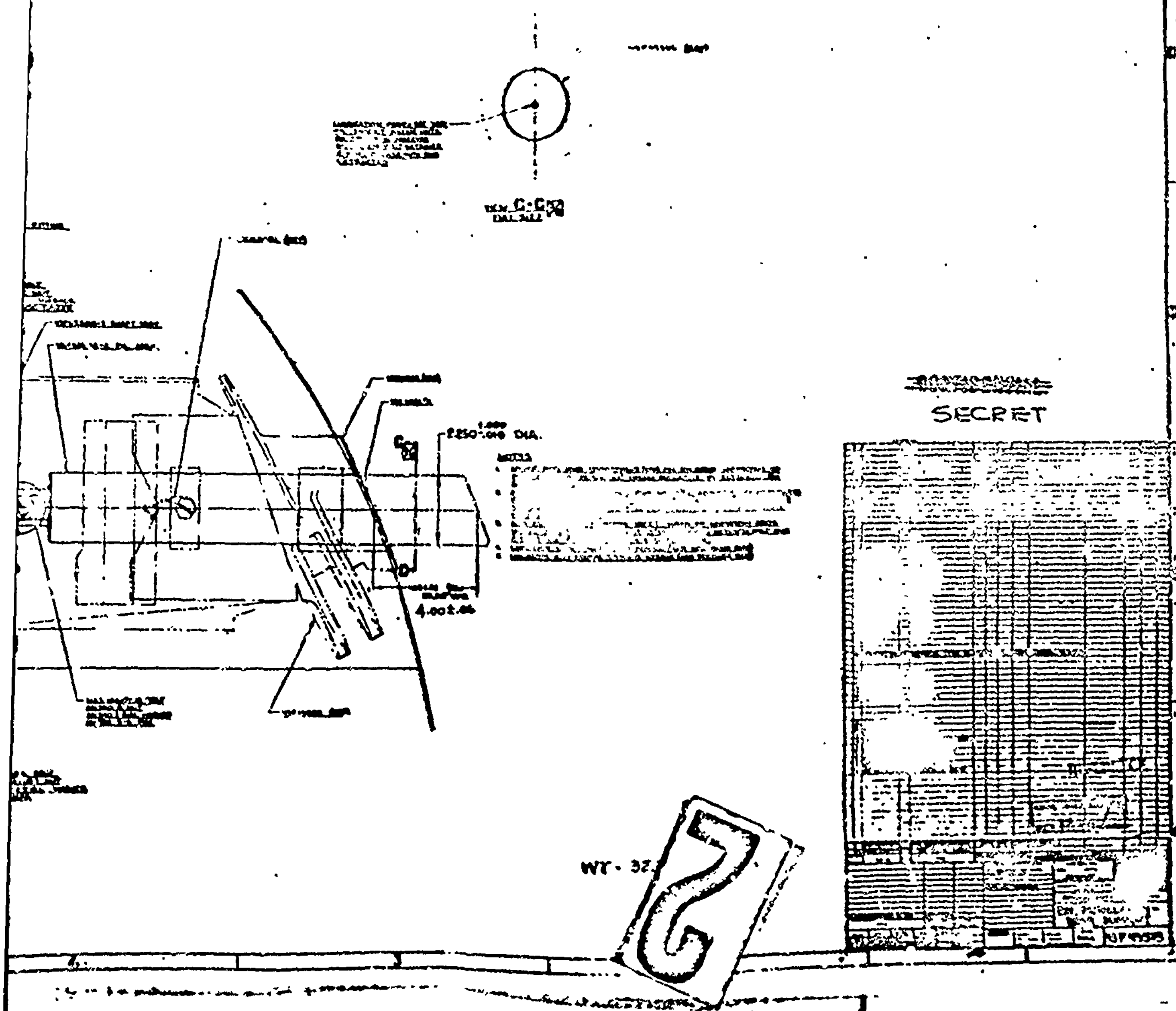

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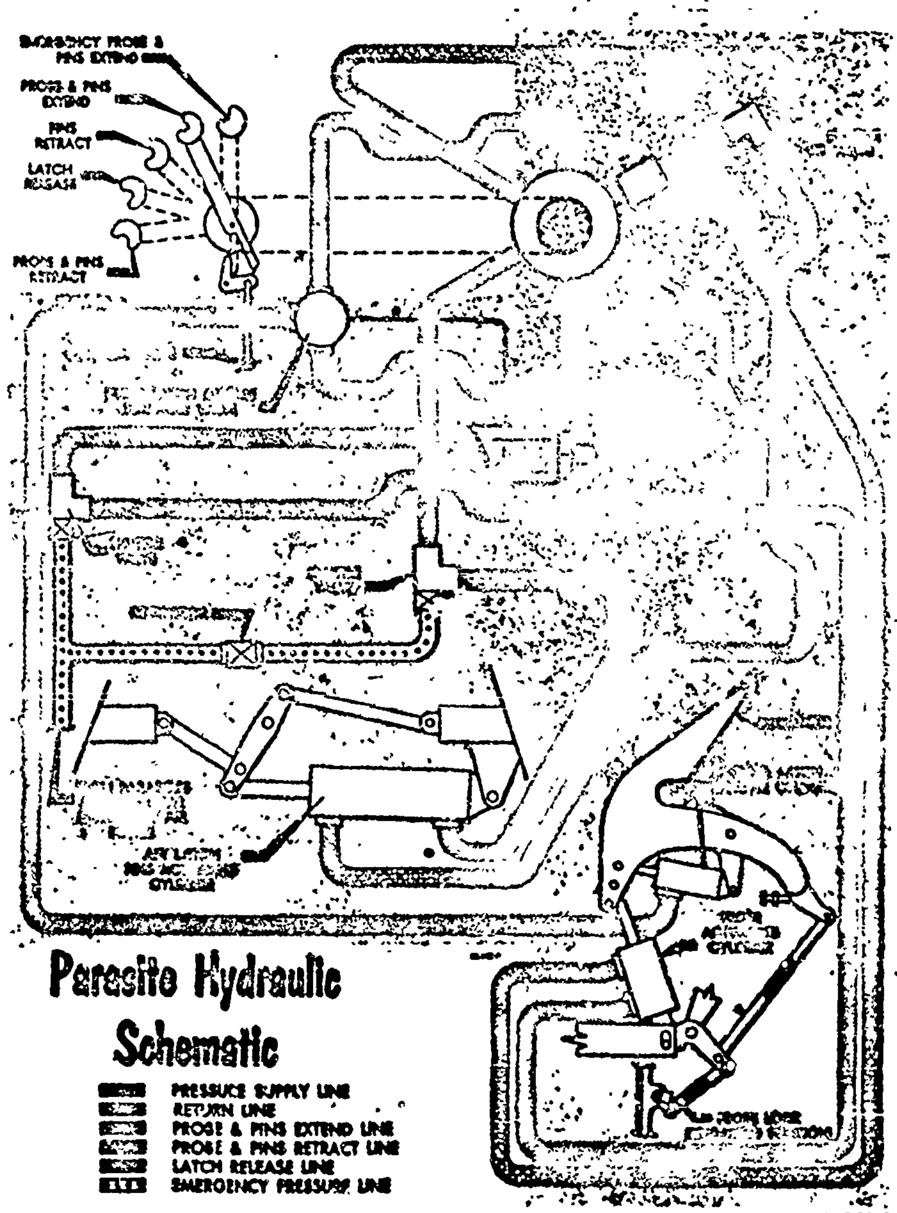


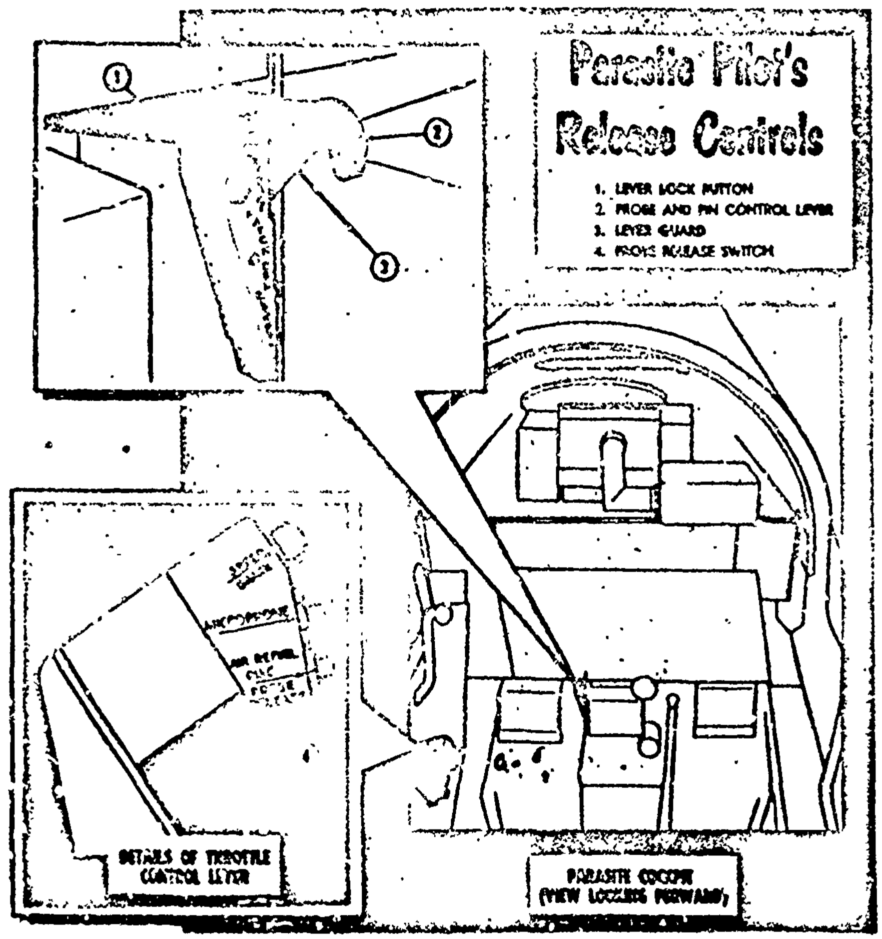
Parasite Hydraulic Schematic

- PRESSURE SUPPLY LINE
- RETURN LINE
- PROBE & PINS EXTEND LINE
- PROBE & PINS RETRACT LINE
- LATCH RELEASE LINE
- EMERGENCY PRESSURE LINE

SECRET

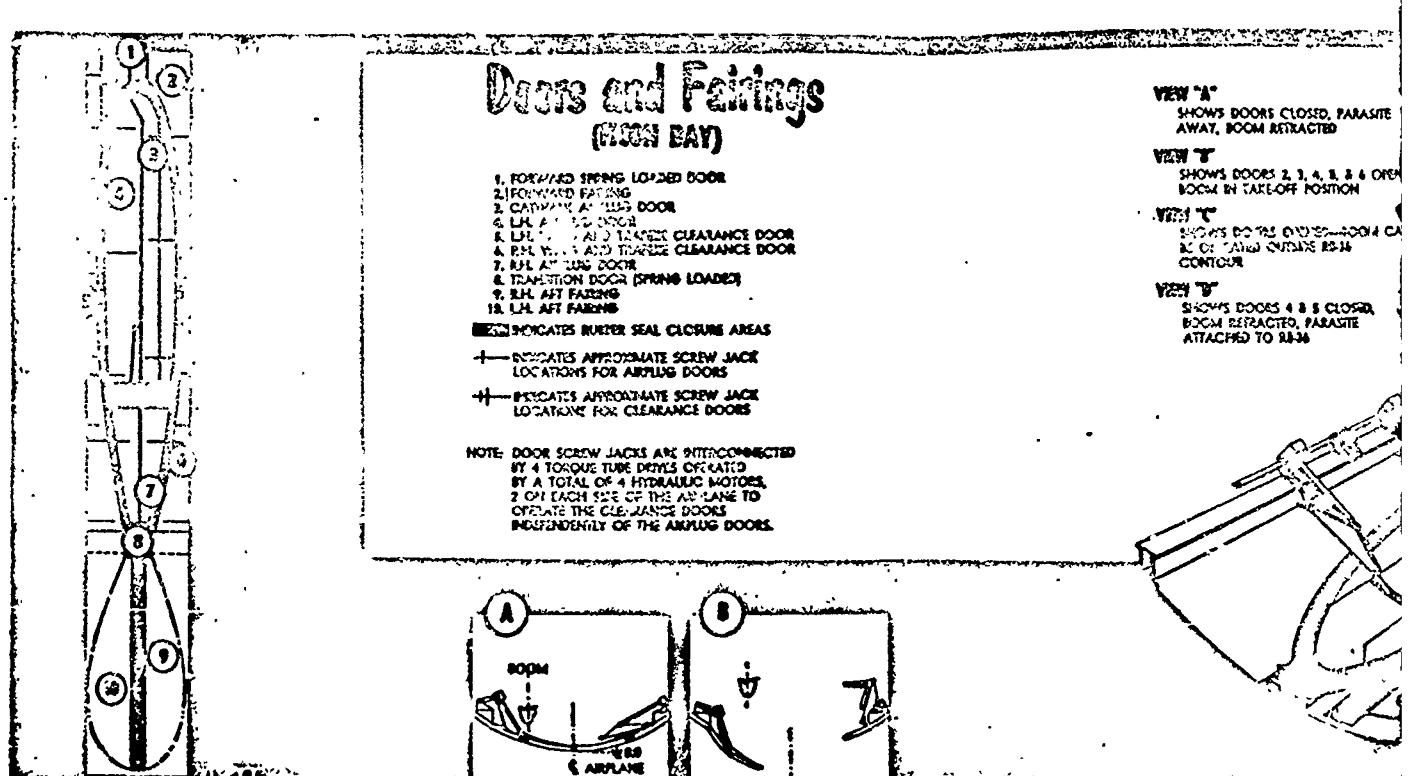
PLATE 4

SECRET
~~CONFIDENTIAL~~



~~CONFIDENTIAL~~
SECRET

PLATE 5


Doors and Fairings
1. FORWARD SPRING LOADED DOOR
2. FORWARD FAIRING
8. TRANSITION DOOR (SPRING LOADED)
9. R.H. AFT FAIRING
10. L.H. AFT FAIRING
INDICATES RUBBER SEAL CLOSURE AREAS
INDICATES APPROXIMATE SCREW JACK LOCATIONS FOR AIRPLUG DOORS
INDICATES APPROXIMATE SCREW JACK LOCATIONS FOR CLEARANCE DOORS
NOTE: DOOR SCREW JACKS ARE INTERCONNECTED BY 4 TORQUE TUBE DRIVES OPERATED BY A TOTAL OF 4 HYDRAULIC MOTORS, 2 ON EACH SIDE OF THE AIRPLANE TO OPERATE THE CLEARANCE DOORS INDEPENDENTLY OF THE AIRPLUG DOORS.
VIEW "A"
SHOWS DOORS CLOSED, PARASITE AWAY, BOOM RETRACTED
SHOWS DOORS 2, 3, 4, 5, & 6 OPEN BOOM IN TAKE-OFF POSITION
CONTOUR
BOOM RETRACTED, PARASITE ATTACHED TO
A
B
BOOM
AIRPLANE

SECRET
~~CONFIDENTIAL~~

... Fairings
(... BAY)

DOORS CLOSED, PARASITE ... BOOM RETRACTED

DOORS 2, 3, 4, 5, & 6 OPEN ... N TAKE-OFF POSITION

... DOORS OPEN—BOOM CA... ...ATED OUTSIDE RB-36 ...R

DOORS 4 & 5 CLOSED, RETRACTED, PARASITE ...HED TO RB-36

...ED DOOR

...OR

...E CLEARANCE DOOR
...E CLEARANCE DOOR

...NG LOADED)

... CLOSURE AREAS

...E SCREW JACK ...UG DOORS

...E SCREW JACK ...ANCE DOORS

...ARE INTERCONNECTED ...S OPERATED ...RAULIC MOTORS, ...LANE TO ...E DOORS ... AND PLUG DOORS.

VIEW "A"
SHOWS DOORS CLOSED, PARASITE AWAY, BOOM RETRACTED

VIEW "B"
SHOWS DOORS 2, 3, 4, 5, & 6 OPEN BOOM IN TAKE-OFF POSITION

VIEW "C"
SHOWS DOORS OPENED—BOOM CAN BE OPERATED OUTSIDE RB-36 CONTOUR

VIEW "D"
SHOWS DOORS 4 & 5 CLOSED, BOOM RETRACTED, PARASITE ATTACHED TO RB-36

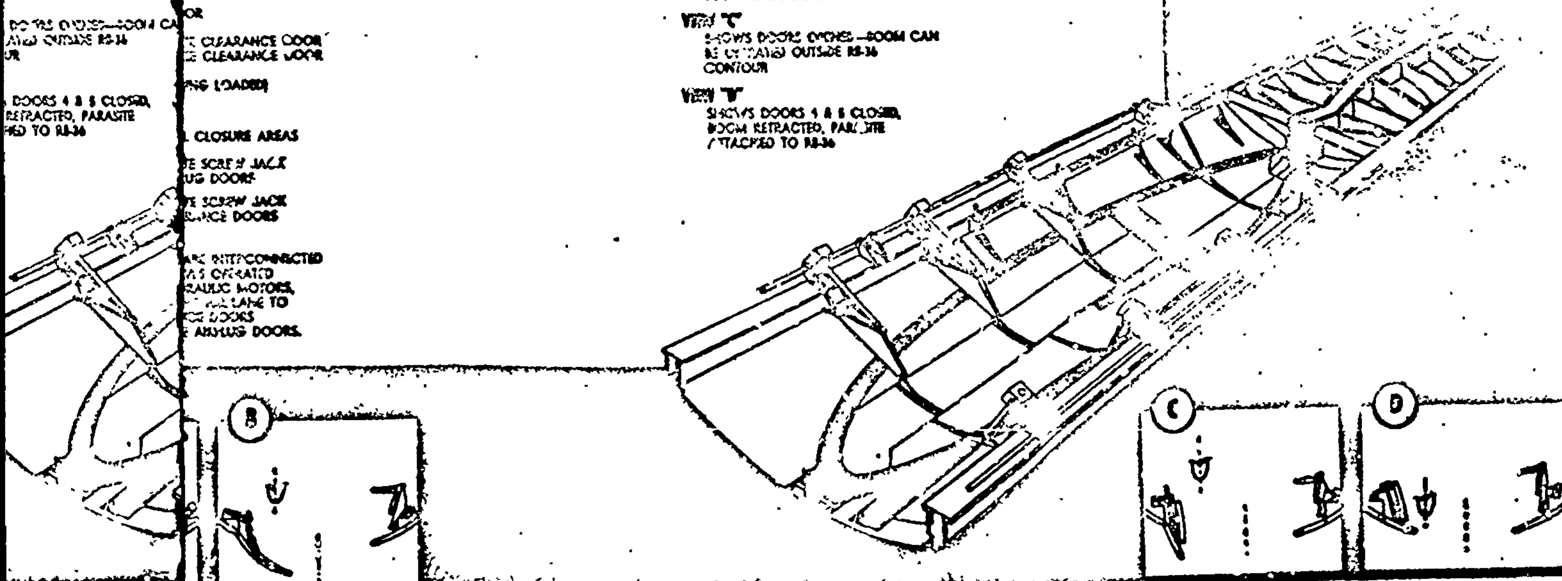


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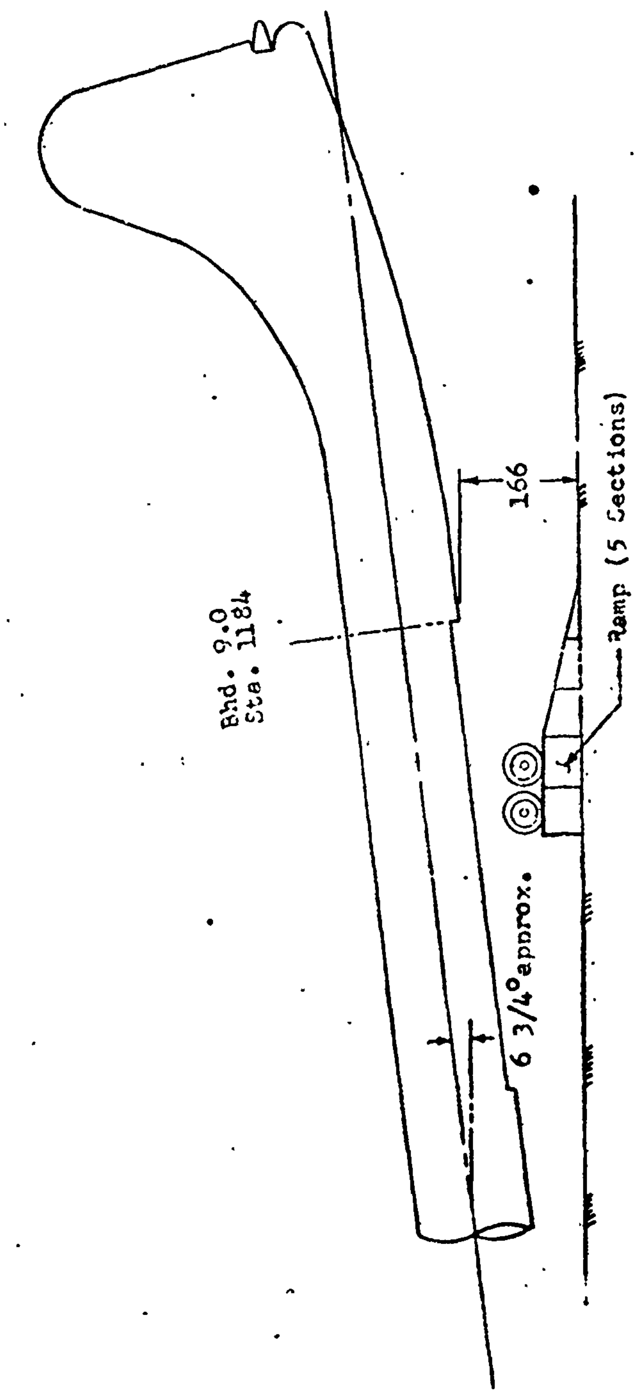
PLATE 6

2

PREPARED BY
CHECKED BY
REVISED BY

FORT WORTH DIVISION
FORT WORTH, TEXAS

REPORT NO.
MODEL
DATE 4



B-36 LOADING POSITION

PLATE 7

DISCLAIMER NOTICE

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 88TH AIR BASE WING (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE OHIO

88 CS/SCOKIF (FOIA)
3810 Communications Blvd
Wright-Patterson AFB OH 45433-7802

02 SEP 2009

Defense Technical Information Center
Attn: Ms. Kelly Akers (DTIC-R)
8725 John J. Kingman Rd, Suite 0944
Ft Belvoir VA 22060-6218

Dear Ms. Akers,

This concerns the following Technical Reports:
AD030368, Project FIÇON, 28 February 1966 (*FOIA#2009-03050FJM*)
AD00052997, Description of Parasite System utilizing Covair, 16 July 1958 (*FOIA# 2009-03049FJM*
AD0162502, Project TOM TOM, 16 July 1958 (*FOIA#2009-03046FJM*)

All of these reports have previous Distribution Limitation: 02- DoD and their contractors.

Subsequent to WPAFB FOIA Control Numbers 2009-03050-FJM, 2009-03049FJM and 2009-03046FJM these records have been cleared for public release by Air Force Research Lab Materials and Manufacturing Senior Scientist and Deputy Chief on 25 August 2009. Therefore, record is now fully releasable to the public. I ask that it be available online for public view so that the requestor may obtain the records as needed.

Please let my point of contact know when the record is available to the public. Email: jodi.mccoy@wpafb.af.mil ,if you have any questions, my point of contact is Jodi McCoy at (937) 522-3095.

Sincerely,

KAREN M. COOK
Freedom of Information Act Manager
Base Information Management Section
Knowledge Operations

8 Attachments
1. FOIA Request # 2009-03046FJM
2. Copy of AFMC Form 559
3. FOIA Request # 2009-03050FJM
4. Copy of AFMC Form 559
5. FOIA Request # 2009-03050FJM
6. Copy of AFMC Form 559
7. FOIA Request # 2009-03049FJM
8. Copy of AFMC Form 559